Высокочистые растворители для анализа следов пестицидов PR, реагенты для органических ионных пар HP

Технические характеристики

Виды товаров: 2-пропанол, ацетон, ацетонитрил, хлороформ, циклогексан, дихлорметан, этилацетат, метанол, н-гептан, н-гексан, толуол, натриевые соли, моногидрат натриевой соли, натриевая соль, цетримид, цетил-n, лаурилсульфат натри, тетрабутиламмоний бромид, тетрабутиламмоний гидросульфат, тетрабутиламмоний иодид, тетраэтиламмоний бромид для синтеза и др.

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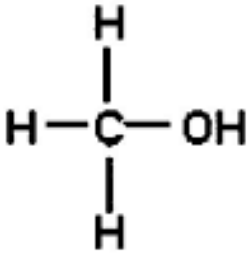
High Purity Solvents For Pesticide Residue Trace Analysis



CODE	PRODUCT NAME	CAS NO.
PR0115	2-Propanol for Pesticide Residue Trace Analysis	67-63-0
PR0010	Acetone for Pesticide Residue Trace Analysis	67-64-1
PR0013	Acetonitrile for Pesticide Residue Trace Analysis	75-05-8
PR0033	Chloroform for Pesticide Residue Trace Analysis	67-66-3
PR0038	Cyclohexane for Pesticide Residue Trace Analysis	110-82-7
PR0046	Dichloro Methane for Pesticide Residue Trace Analysis	75-09-2
PR0055	Ethyl Acetate for Pesticide Residue Trace	141-78-6

PR0091	Methanol for Pesticide Residue Trace Analysis	67-56-1
PR0073	n-Heptane for Pesticide Residue Trace Analysis	142-82-5
PR0075	n-Hexane for Pesticide Residue Trace Analysis	110-54-3
PR0131	Toluene for Pesticide Residue Trace Analysis	108-88-3

Material Safety Data Sheet

Chemistry beyond chemicals

SECTION 1: IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

Chemical name	2-Propanol for Pesticide Residue Trace Analysis
Cat No.	PR0115
CAS-No.	67-63-0
M.W.	60.10
EC-No.	-
Company	
Email	

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Component(s)	Isopropyl alcohol
CAS No.	67-63-0
Percent	>99.8%
Substance/Mixture	Substance
Synonym	Propan-2-ol; Isopropanol; IPA
Chemical Formula	$(CH_3)_2CHOH$

SECTION 3: HAZARDS IDENTIFICATION

GHS CLASSIFICATION

Flammable liquids	(Category 2)
Eye irritation	(Category 2)
Specific target organ toxicity - single exposure	(Category 3)

GHS LABEL ELEMENTS

Pictograms or Hazard Symbols

Signal word Danger

Hazard statement(s)

H225	Highly flammable liquid and vapour.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.

Precautionary statement(s)

P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P261	Avoid breathing vapours.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Risk Phrases

R11	Highly flammable.
R36	Irritating to eyes.
R67	Vapours may cause drowsiness and dizziness.

Safety Phrases

S7	Keep container tightly closed.
S16	Keep away from sources of ignition.
S24/25	Avoid contact with skin and eyes.
S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

SECTION 4: FIRST AID MEASURES

Inhalation	If breathed in, move victim into fresh air. Keep at comfortable position for breathing. Get medical advice.
Skin contact	Remove contaminated clothes immediately and wash gently with plenty of soap and water. Get medical advice.
Eye contact	Remove contact lenses, if present. Rinse thoroughly with plenty of water for several minutes. Get medical advice.
Ingestion	Do NOT induce vomiting. Rinse mouth with water. Get medical advice.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media	Water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special hazards	Carbon oxides
Advice for firefighters	Wear personal protective equipment for fire fighting if necessary.

Further information	no data available

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions	Use personal protective equipment (self-contained breathing apparatus). Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Remove all sources of ignition.
Environmental precautions	Prevent further leakage/spillage. Do not let product enter drains/rivers. Discharge into the environment must be avoided.
Methods and materials for containment and cleaning up	Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable closed containers for disposal.

SECTION 7: HANDLING AND STORAGE

Handling	Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.
Storage condition	Store in a cool, dry and well-ventilated place. Keep container tightly closed.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls	Ensure adequate ventilation. Install safety shower and eye bath. Good industrial hygiene and safety practice should be followed. Wash hands after handling the product.
Eye/face protection	Face shield and safety glasses, if required.
Hand protection	Handle with gloves. Dispose of contaminated gloves after use. Wash and dry hands.
Skin and Body Protection	Impervious protective clothing and boots, if required.
Respiratory protection	Use half or full-face respirator with multi-purpose combination. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	A clear colourless liquid
Odour	alcohol-like
Odour Threshold	1.0 -196.1 ppm
pH	at 20 °C neutral
Melting/freezing point	-89.5 °C
Boiling point/range	82.4 °C at 1,013 hPa
Flash point	12.0 °C
Evapouration rate	no data available
Vapour pressure	43 hPa at 20 °C
Vapour density	2.07
Relative density	0.783-0.786g
Water solubility	at 20 °C soluble
LogPow	0.05
Auto-ignition temperature	no data available
Decomposition temperature	no data available
Viscosity	2.2 mPa.s at 20 °C
Explosive properties	no data available
Oxidizing properties	no data available

SECTION 10: STABILITY AND REACTIVITY

Reactivity	Formation of peroxides possible. Vapours may form explosive mixture with air.
Stability	Sensitivity to light, Sensitive to air. The product is chemically stable under standard ambient conditions (room temperature)
Incompatibilities	rubber, various plastics, oils
Hazardous decomposition products	Peroxides
Conditions to avoid	Warming.

SECTION 11: TOXICOLOGICAL INFORMATION

Skin corrosion/irritation	Rabbit Result: No skin irritation
Serious eye damage/irritation	Rabbit Result: Eye irritation
Respiratory/skin sensitization	Buehler Test Guinea pig Result: negative
Germ cell mutagenicity	Genotoxicity in vitro Ames test Salmonella typhimurium Result: negative
Carcinogenicity	no data available
Reproductive toxicity	no data available

Specific target organ toxicity	Single exposure**:** May cause drowsiness or dizziness.
Specific target organ toxicity	Repeated exposure**:** no data available
Aspiration hazard	no data available
RTECS	Not available

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

Toxicity to fish	flow-through test LC50 Pimephales promelas (fathead minnow): 9,640 mg/l; 96
Toxicity to daphnia and other aquatic invertebrates	EC50 Daphnia magna (Water flea): 13,299 mg/l; 48 h
Persistence/degradation	Biodegradability 95 %; 21 d; aerobic Readily biodegradable
Environmental	no data available

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose of contaminated packaging or unused product as per local law and regulations.
There are many pieces of legislation covering waste disposal and they differ in each state and territory, so each user must refer to laws operating in their area. Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste.

SECTION 14: TRANSPORT INFORMATION

UN number	1219
Proper shipping name	ISOPROPANOL
Hazard class	3
Packaging group	II

SECTION 15: REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.
Safety, health and environmental regulations/legislation specific for the substance/mixture: no data available

SECTION 16: OTHER INFORMATION

Product Use: Laboratory Reagent.

Please read all labels carefully before using product.

The above information contained herewith is believed to be accurate. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. This document does not represent any guarantee of the properties of the product. HPLC shall not be held liable for any claims, losses, or damages resulting from handling or from contact with the above product.

Material Safety Data Sheet

Chemistry beyond chemicals

SECTION 1: IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

Chemical name	Acetone for Pesticide Residue Trace Analysis
Cat No.	PR0010
CAS-No.	67-64-1
M.W.	58.08
EC-No.	200-662-2
Company	
Email	

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Component(s)	-
CAS No.	67-64-1
Percent	>99.8%
Substance/Mixture	Substance
Synonym	2-Propanone; Dimethyl ketone
Chemical Formula	$(CH_3)_2CO$

SECTION 3: HAZARDS IDENTIFICATION

GHS CLASSIFICATION

Flammable liquids	(Category 2)
Eye irritation	(Category 2)
Specific target organ toxicity - single exposure	(Category 3)

GHS LABEL ELEMENTS

Pictograms or Hazard Symbols

Signal word Danger

Hazard statement(s)

H225	Highly flammable liquid and vapour.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.

Precautionary statement(s)

P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P261	Avoid breathing vapours.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

SECTION 4: FIRST AID MEASURES

Inhalation	If breathed in, move victim into fresh air. Keep at comfortable position for breathing. Get medical advice.
Skin contact	Remove contaminated clothes immediately and wash gently with plenty of soap and water. Get medical advice.
Eye contact	Remove contact lenses, if present. Rinse thoroughly with plenty of water for several minutes. Get medical advice.
Ingestion	Do NOT induce vomiting. Rinse mouth with water. Get medical advice.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media	Water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special hazards	Carbon oxides.
Advice for firefighters	Wear personal protective equipment for firefighting if necessary.
Further information	no data available

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions	Use personal protective equipment (self-contained breathing apparatus). Avoid breathing

	vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Remove all sources of ignition.
Environmental precautions	Prevent further leakage/spillage. Do not let product enter drains/rivers. Discharge into the environment must be avoided.
Methods and materials for containment and cleaning up	Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable closed containers for disposal.

SECTION 7: HANDLING AND STORAGE

Handling	Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.
Storage condition	Store in a cool, dry and well-ventilated place. Keep container tightly closed.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls	Ensure adequate ventilation. Install safety shower and eye bath. Good industrial hygiene and safety practice should be followed. Wash hands after handling the product.
Eye/face protection	Face shield and safety glasses, if required.
Hand protection	Handle with gloves. Dispose of contaminated gloves after use. Wash and dry hands.
Skin and Body Protection	Impervious protective clothing and boots, if required.
Respiratory protection	Use half or full-face respirator with multi-purpose combination.If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	clear colourless liquid
Odour	Like-Fruit
Odour Threshold	0.1 - 662.5 ppm
pH	5 - 6 at 395 g/l 20 °C
Melting/freezing point	-95.4 °C
Boiling point/range	56.2 °C at 1,013 hPa
Flash point	< -20 °C
Evapouration rate	no data available
Vapour pressure	233 hPa at 20 °C
Vapour density	2.01
Relative density	0.789-0.791 g
Water solubility	at 20 °C soluble
LogPow	-0.24
Auto-ignition temperature	no data available
Decomposition temperature	no data available
Viscosity	0.32 mPa.s at 20 °C
Explosive properties	no data available
Oxidizing properties	no data available

SECTION 10: STABILITY AND REACTIVITY

Reactivity	Vapours may form explosive mixture with air.
Stability	Sensitivity to light, Sensitive to air.
Incompatibilities	rubber, various plastics
Hazardous decomposition products	no data available
Conditions to avoid	Warming

SECTION 11: TOXICOLOGICAL INFORMATION

Acute toxicity	Acute oral toxicity LD50 Rat: 5,800 mg/kg Acute inhalation toxicity LC50 Rat: 76 mg/l; 4 h Acute dermal toxicity LD50 Rabbit: 20,000 mg/kg
Skin corrosion/irritation	Rabbit Result: No irritation
Serious eye damage/irritation	Rabbit Result: Eye irritation
Respiratory/skin sensitization	Maximisation Test Guinea pig Result: negative
Germ cell mutagenicity	Genotoxicity in vivo Micronucleus test Result: negative
Carcinogenicity	no data available

Reproductive toxicity	no data available
Specific target organ toxicity	Single exposure**:** May cause drowsiness or dizziness.
Specific target organ toxicity	Repeated exposure**:** no data available
Aspiration hazard	no data available
RTECS	Not available

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity	
Toxicity to fish	LC50 Oncorhynchus mykiss (rainbow trout): 5,540 mg/l; 96 h
Toxicity to daphnia and other aquatic invertebrates	EC50 Daphnia magna (Water flea): 6,100 mg/l; 48 h
Persistence/degradation	
Biodegradability	Result: 91 % - Readily biodegradable.
Environmental	no data available

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose of contaminated packaging or unused product as per local law and regulations.
There are many pieces of legislation covering waste disposal and they differ in each state and territory, so each user must refer to laws operating in their area. Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste.

SECTION 14: TRANSPORT INFORMATION

UN number	1090
Proper shipping name	Acetone
Hazard class	3
Packaging group	II

SECTION 15: REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.
Safety, health and environmental regulations/legislation specific for the substance/mixture: no data available

SECTION 16: OTHER INFORMATION

Product Use: Laboratory Reagent.

Please read all labels carefully before using product.

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Material Safety Data Sheet

Chemistry beyond chemicals

SECTION 1: IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

Chemical name	**Acetonitrile** for Pesticide Residue Trace Analysis
Cat No.	PR0013
CAS-No.	75-05-8
M.W.	41.05
EC-No.	200-835-2
Company	
Email	

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Component(s)	-
CAS No.	75-05-8
Percent	>99.9%
Substance/Mixture	Substance
Synonym	Methyl cyanide ; Cyanomethane
Chemical Formula	CH_3CN

SECTION 3: HAZARDS IDENTIFICATION

GHS CLASSIFICATION

Flammable liquids	(Category 2)
Acute toxicity, Oral	(Category 4)
Acute toxicity, Inhalation	(Category 4)
Acute toxicity, Dermal	(Category 4)
Eye irritation	(Category 2)

GHS LABEL ELEMENTS

Pictograms or Hazard Symbols

Signal word

Danger

Hazard statement(s)

H225 Highly flammable liquid and vapour.
H302 + H312 + H332 Harmful if swallowed, in contact with skin or if inhaled
H319 Causes serious eye irritation.

Precautionary statement(s)

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P280 Wear protective gloves/ protective clothing.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

SECTION 4: FIRST AID MEASURES

Inhalation	If breathed in, move victim into fresh air. Keep at comfortable position for breathing. Get medical advice.
Skin contact	Remove contaminated clothes immediately and wash gently with plenty of soap and water. Get medical advice.
Eye contact	Remove contact lenses, if present. Rinse thoroughly with plenty of water for several minutes. Get medical advice.
Ingestion	Do NOT induce vomiting. Rinse mouth with water. Get medical advice.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media	Water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special hazards	Carbon oxides, nitrogen oxides (NOx)
Advice for firefighters	Wear personal protective equipmentfor fire fighting if necessary.
Further information	Use water spray to cool unopened containers.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions	Use personal protective equipment (self-contained breathing apparatus). Avoid breathing

	vapours, mist or gas. Ensure adequate ventilation.Evacuate personnel to safe areas. Remove all sources of ignition.
Environmental precautions	Prevent further leakage/spillage. Do not let product enter drains/rivers. Discharge into the environment must be avoided.
Methods and materials for containment and cleaning up	Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep insuitable, closed containers for disposal.

SECTION 7: HANDLING AND STORAGE

Handling	Avoid contact with skin and eyes.Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.
Storage condition	Store in a cool, dry and well-ventilated place. Keep container tightly closed.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls	Ensure adequate ventilation. Install safety shower and eye bath. Good industrial hygiene and safety practice should be followed. Wash hands after handling the product.
Eye/face protection	Face shield and safety glasses, if required.
Hand protection	Handle with gloves. Dispose of contaminated gloves after use.Wash and dry hands.
Skin and Body Protection	Impervious protective clothing and boots, if required.
Respiratory protection	Use half or full-face respirator with multi-purpose combination.If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	clear colourless liquid
Odour	ether-like
Odour Threshold	no data available
pH	no data available
Melting/freezing point	-45.7°C at 1.013 hPa
Boiling point/range	80-83°C
Flash point	2.0°C -closed cup
Evapouration rate	5.8
Vapour pressure	73,18 hPa at 15 °C 121.44 hPa at 25 °C 413.23 hPa at 55 °C 98.64 hPa at 20 °C
Vapour density	1.42 - (Air = 1.0)
Relative density	0.780-0.783g
Water solubility	completely miscible
LogPow	-0.54 at 25 °C
Auto-ignition temperature	524.0 °C
Decomposition temperature	no data available
Viscosity	no data available
Explosive properties	Not explosive
Oxidizing properties	The substance or mixture is not classified as oxidizing.

SECTION 10: STABILITY AND REACTIVITY

Reactivity	no data available
Stability	Stable under recommended storage conditions.
Incompatibilities	Acids, Bases, Oxidizing agents, Reducing agents, Alkali metals
Hazardous decomposition products	no data available
Conditions to avoid	Heat, flames and sparks. Extremes of temperature and direct sunlight.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute toxicity	LD50 Oral - rat - male - 1.320 - 6.690 mg/kg LC50 Inhalation - mouse - 4 h - 3587 ppm (OECD Test Guideline 403) LC50 Inhalation - rat - 4 h - 26,8 mg/l LD50 Dermal - rabbit - male and female - > 2.000 mg/kg (OECD Test Guideline 402)
Skin corrosion/irritation	Skin – rabbit Result: No skin irritation (OECD Test Guideline 404)

Serious eye damage/irritation	Eyes – rabbit Result: Irritating to eyes. (OECD Test Guideline 405)
Respiratory/skin sensitization	Buehler Test - guinea pig Did not cause sensitisation on laboratory animals. (OECD Test Guideline 406)
Germ cell mutagenicity	no data available
Carcinogenicity	IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
Reproductive toxicity	Animal testing did not show any effects on fertility.
Specific target organ toxicity	Single exposure **:** The substance or mixture is not classified as specific target organ toxicant,single exposure.
Specific target organ toxicity	Repeated exposure**:** The substance or mixture is not classified as specific target organ toxicant, repeated exposure.
Aspiration hazard	No aspiration toxicity classification
RTECS	AL7700000

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

Toxicity to fish	LC50 - Pimephales promelas (fathead minnow) - 1.640,00 mg/l - 96 h NOEC - Oryzias latipes - 102 mg/l - 21 d
Toxicity to daphnia and other aquatic invertebrates	EC50 - Daphnia magna (Water flea) - 3.600 mg/l - 48 h (OECD Test Guideline 202) NOEC - Daphnia magna (Water flea) - 160 mg/l - 21 d
Persistence/degradation	
	Biodegradability Result: 84 % - Readily biodegradable. (OECD Test Guideline 301C)
Environmental	no data available

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose of contaminated packaging or unused product as per local law and regulations.
There are many pieces of legislation covering waste disposal and they differ in each state and territory, so each user must refer to laws operating in their area. Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste.

SECTION 14: TRANSPORT INFORMATION

UN number	1648
Proper shipping name	Acetonitrile
Hazard class	3
Packaging group	II

SECTION 15: REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

Safety, health and environmental regulations/legislation specific for the substance/mixture :no data available

SECTION 16: OTHER INFORMATION

Product Use: Laboratory Reagent.

Please read all labels carefully before using product.

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Material Safety Data Sheet

Chemistry beyond chemicals

SECTION 1: IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

Chemical name	Chloroform for Pesticide Residue Trace Analysis
Cat No.	PR0033
CAS-No.	67-66-3
M.W.	119.38
EC-No.	200-663-8
Company	
Email	

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Component(s)	-
CAS No.	67-66-3
Percent	>99.0 %
Substance/Mixture	Substance
Synonym	Trichloromethane; Methyl trichloride
Chemical Formula	$CHCl_3$

SECTION 3: HAZARDS IDENTIFICATION

GHS CLASSIFICATION

Acute toxicity, Oral	(Category 4)
Acute toxicity, Inhalation	(Category 3)
Skin irritation	(Category 2)
Eye irritation	(Category 2)
Carcinogenicity	(Category 2)
Reproductive toxicity	(Category 2)
Specific target organ toxicity - single exposure	(Category 3)
Specific target organ toxicity - repeated exposure	(Category 1)

GHS LABEL ELEMENTS

Pictograms or Hazard Symbols

Signal word Danger

Hazard statement(s)

H302	Harmful if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H351	Suspected of causing cancer.
H361d	Suspected of damaging the unborn child.
H372	Causes damage to organs (Liver, Kidney) through prolonged or repeated exposure.

Precautionary statement(s)

Response

P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P304 + P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P310	IF exposed or concerned: immediately call a POISON CENTER or doctor/ phyician.

Risk Phrases

R22	Harmful if swallowed.
R40	Limited evidence of a carcinogenic effect.
R48/20/22	Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed.

Safety Phrases

S36/37	Wear suitable protective clothing and gloves.

SECTION 4: FIRST AID MEASURES

Inhalation	If breathed in, move victim into fresh air. Keep at comfortable position for breathing. Get medical advice.
Skin contact	Remove contaminated clothes immediately and wash gently with plenty of soap and water. Get medical advice.
Eye contact	Remove contact lenses, if present. Rinse thoroughly with plenty of water for several minutes. Get medical advice.
Ingestion	Do NOT induce vomiting. Rinse mouth with water. Get medical advice.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media	Water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special hazards	Carbon oxides, Hydrogen chloride gas.
Advice for firefighters	Wear personal protective equipment for fire fighting if necessary.
Further information	no data available

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions	Use personal protective equipment (self-contained breathing apparatus). Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Remove all sources of ignition.
Environmental precautions	Prevent further leakage/spillage. Do not let product enter drains/rivers. Discharge into the environment must be avoided.
Methods and materials for containment and cleaning up	Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable closed containers for disposal.

SECTION 7: HANDLING AND STORAGE

Handling	Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.
Storage condition	Store in a cool, dry and well-ventilated place. Keep container tightly closed.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls	Ensure adequate ventilation. Install safety shower and eye bath. Good industrial hygiene and safety practice should be followed. Wash hands after handling the product.
Eye/face protection	Face shield and safety glasses, if required.
Hand protection	Handle with gloves. Dispose of contaminated gloves after use. Wash and dry hands.
Skin and Body Protection	Impervious protective clothing and boots, if required.
Respiratory protection	Use half or full-face respirator with multi-purpose combination. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	clear colourless liquid
Odour	Sweet
Odour Threshold	84.9-201.5 ppm
pH	no data available
Melting/freezing point	-63°C
Boiling point/range	ca.61 °C at 1,013 hPa
Flash point	no data available
Evapouration rate	no data available
Vapour pressure	211 hPa at 20 °C
Vapour density	4.25
Relative density	1.474-1.480g
Water solubility	8.7 g/l at 23 °C
LogPow	2
Auto-ignition temperature	no data available
Decomposition temperature	no data available
Viscosity	0.57 mPa.s at 20 °C
Explosive properties	no data available
Oxidizing properties	no data available

SECTION 10: STABILITY AND REACTIVITY

Reactivity	no data available
Stability	Stable under recommended storage conditions.

Incompatibilities	rubber, various plastics
Hazardous decomposition products	no data available
Conditions to avoid	no data available

SECTION 11: TOXICOLOGICAL INFORMATION

Skin corrosion/irritation	Skin – Rabbit Result: Irritating to skin. - 24 h
Serious eye damage/irritation	Eyes – Rabbit Result: Irritating to eyes. - 24 h
Respiratory/skin sensitization	no data available
Germ cell mutagenicity	Laboratory experiments have shown mutagenic effects.
Carcinogenicity	no data available
Reproductive toxicity	no data available
Specific target organ toxicity	Single exposure**:** no data available
Specific target organ toxicity	Repeated exposure**:** The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 1. -Liver, Kidney
Aspiration hazard	no data available
RTECS	FS9100000

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

Toxicity to fish	LC50 Lepomis macrochirus (Bluegill sunfish): 18 mg/l; 96 h
Toxicity to daphnia and other aquatic invertebrates	EC50 Daphnia magna (Water flea): 79 mg/l; 48 h
Persistence/degradation	Biodegradability 0 %; 14 d Not readily biodegradable.
Environmental	Harmful to aquatic life.

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose of contaminated packaging or unused product as per local law and regulations.
There are many pieces of legislation covering waste disposal and they differ in each state and territory, so each user must refer to laws operating in their area. Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste.

SECTION 14: TRANSPORT INFORMATION

UN number	1888
Proper shipping name	Chloroform
Hazard class	6.1
Packaging group	III

SECTION 15: REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.
Safety, health and environmental regulations/legislation specific for the substance/mixture: no data available

SECTION 16: OTHER INFORMATION

Product Use: Laboratory Reagent.

Please read all labels carefully before using product.

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Material Safety Data Sheet

Chemistry beyond chemicals

SECTION 1: IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

Chemical name	Cyclohexane for Pesticide Residue Trace Analysis
Cat No.	PR0038
CAS-No.	110-82-7
M.W.	84.16
EC-No.	203-806-2
Company	
Email	

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Component(s)	-
CAS No.	110-82-7
Percent	99.8%
Substance/Mixture	Substance
Synonym	-
Chemical Formula	$CH_2.(CH_2)_4.CH_2$

SECTION 3: HAZARDS IDENTIFICATION

GHS CLASSIFICATION

Flammable liquid	Category 2
Skin irritation	Category 2
Specific target organ toxicity - single exposure	Category 3
Aspiration hazard	Category 1
Acute aquatic toxicity	Category 1
Chronic aquatic toxicity	Category 1

GHS LABEL ELEMENTS

Pictograms or Hazard Symbols

Signal word

Danger

Hazard statement(s)

H225	Highly flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H410	Very toxic to aquatic life with long lasting effects.

Precautionary statement(s)

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P273	Avoid release to the environment.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P331	Do NOT induce vomiting.
P501	Dispose of contents/container to.....

Risk Phrases

R11	Highly flammable.
R38	Irritating to skin.
R65	Harmful: may cause lung damage if swallowed.
R67	Vapours may cause drowsiness and dizziness.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety Phrases

S9	Keep container in a well-ventilated place.
S16	Keep away from sources of ignition - No smoking.
S25	Avoid contact with eyes.
S33	Take precautionary measures against static discharges.
S51	Use only in well-ventilated areas.
S60	This material and its container must be disposed of as hazardous waste.
S61	Avoid release to the environment. Refer to special instructions/ Safety data sheets.

S62	If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

SECTION 4: FIRST AID MEASURES

Inhalation	If breathed in, move victim into fresh air. Keep at comfortable position for breathing. Get medical advice.
Skin contact	Remove contaminated clothes immediately and wash gently with plenty of soap and water. Get medical advice.
Eye contact	Remove contact lenses, if present. Rinse thoroughly with plenty of water for several minutes. Get medical advice.
Ingestion	Do NOT induce vomiting. Rinse mouth with water. Get medical advice.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media	Water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special hazards	no data available
Advice for firefighters	Wear personal protective equipment for fire fighting if necessary.
Further information	no data available

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions	Use personal protective equipment (self-contained breathing apparatus). Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Remove all sources of ignition.
Environmental precautions	Prevent further leakage/spillage. Do not let product enter drains/rivers. Discharge into the environment must be avoided.
Methods and materials for containment and cleaning up	Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable closed containers for disposal.

SECTION 7: HANDLING AND STORAGE

Handling	Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.
Storage condition	Store in a cool, dry and well-ventilated place. Keep container tightly closed.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls	Ensure adequate ventilation. Install safety shower and eye bath. Good industrial hygiene and safety practice should be followed. Wash hands after handling the product.
Eye/face protection	Face shield and safety glasses, if required.
Hand protection	Handle with gloves. Dispose of contaminated gloves after use. Wash and dry hands.
Skin and Body Protection	Impervious protective clothing and boots, if required.
Respiratory protection	Use half or full-face respirator with multi-purpose combination. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	A Clear colorless liquid.
Odour	Sweet
Odour Threshold	0.5 ppm
pH	no data available
Melting/freezing point	6.5 °C
Boiling point/range	80-82ºC
Flash point	-18 °C
Evapouration rate	no data available
Vapour pressure	124 hPa at 24 °C
Vapour density	2.9
Relative density	0.776-0.780 g
Water solubility	0.05 g/l at 20 °C
LogPow	3.44
Auto-ignition temperature	no data available
Decomposition temperature	no data available
Viscosity	0.98 mPa.s at 20 °C
Explosive properties	no data available
Oxidizing properties	no data available

Reactivity	Vapours may form explosive mixture with air.
Stability	The product is chemically stable under standard ambient conditions (room temperature).
Incompatibilities	rubber, various plastics
Hazardous decomposition products	no data available
Conditions to avoid	Warming.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute toxicity	Acute oral toxicity: LD50 Rat: > 5,000 mg/kg Acute inhalation toxicity: LC50 Rat: > 33.88 mg/l; 4 h Acute dermal toxicity: LD50 Rabbit: > 2,000 mg/kg
Skin corrosion/irritation	Causes skin irritation.
Serious eye damage/irritation	Rabbit Result: No eye irritation
Respiratory/skin sensitization	Buehler Test Guinea pig Result: Does not cause skin sensitisation.
Germ cell mutagenicity	Genotoxicity in vivo: Chromosome aberration test Rat male and female inhalation (vapour) Bone marrow Result: negative Genotoxicity in vitro: Ames test Salmonella typhimurium Result: negative
Carcinogenicity	no data available
Reproductive toxicity	no data available
Specific target organ toxicity	Single exposure**:** May cause drowsiness or dizziness.
Specific target organ toxicity	Repeated exposure**:** no data available
Aspiration hazard	Aspiration hazard, Aspiration may cause pulmonary oedema and pneumonitis.
RTECS	Not available

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

Toxicity to fish:	flow-through test LC50 Pimephales promelas : 4.53 mg/l; 96 h
Toxicity to daphnia and other aquatic invertebrates:	static test EC50 Daphnia magna (Water flea): 0.9 mg/l; 48 h
Persistence/degradation	Biodegradability 77 %; 28 d; Readily biodegradable
Environmental	no data available

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose of contaminated packaging or unused product as per local law and regulations.
There are many pieces of legislation covering waste disposal and they differ in each state and territory, so each user must refer to laws operating in their area. Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste.

SECTION 14: TRANSPORT INFORMATION

UN number	1145
Proper shipping name	CYCLOHEXANE
Hazard class	3
Packaging group	II

SECTION 15: REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.
Safety, health and environmental regulations/legislation specific for the substance/mixture: no data available

SECTION 16: OTHER INFORMATION

Product Use: Laboratory Reagent.

Please read all labels carefully before using product.

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Material Safety Data Sheet

Chemistry beyond chemicals

SECTION 1: IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

Chemical name	Dichloro Methane for Pesticide Residue Trace Analysis
Cat No.	PR0046
CAS-No.	75-09-2
M.W.	84.93
EC-No.	200-838-9
Company	
Email	

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Component(s)	Methylene Chloride
CAS No.	75-09-2
Percent	>99.8%
Substance/Mixture	Substance
Synonym	Methylene Chloride
Chemical Formula	CH_2Cl_2

SECTION 3: HAZARDS IDENTIFICATION

GHS CLASSIFICATION

Skin irritation	(Category 2)
Eye irritation	(Category 2)
Carcinogenicity	(Category 2)
Specific target organ toxicity - single exposure	(Category 3)
Specific target organ toxicity - repeated exposure, Oral	(Category 2)
Specific target organ toxicity - repeated exposure, Inhalation	(Category 2)

GHS LABEL ELEMENTS

Pictograms or Hazard Symbols

Signal word Warning

Hazard statement(s)

H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H351	Suspected of causing cancer.
H373	May cause damage to organs (Liver, Blood) through prolonged or repeated exposure if swallowed.

Precautionary statement(s)

P261	Avoid breathing vapours.
P281	Use personal protective equipment as required.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Risk Phrases

R36/37/38	Irritating to eyes, respiratory system and skin.
R40	Limited evidence of a carcinogenic effect.
R67	Vapours may cause drowsiness and dizziness.

Safety Phrases

S23	Do not breathe vapour.
S24/25	Avoid contact with skin and eyes.
S36/37	Wear suitable protective clothing and gloves.

SECTION 4: FIRST AID MEASURES

Inhalation	If breathed in, move victim into fresh air. Keep at comfortable position for breathing. Get medical advice.
Skin contact	Remove contaminated clothes immediately and wash gently with plenty of soap and water. Get medical advice.
Eye contact	Remove contact lenses, if present. Rinse thoroughly with plenty of water for several minutes. Get medical advice.

Ingestion	Do NOT induce vomiting. Rinse mouth with water. Get medical advice.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media	Water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special hazards	Hydrogen chloride gas, Phosgene
Advice for firefighters	Wear personal protective equipment for fire fighting if necessary.
Further information	no data available

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions	Use personal protective equipment (self-contained breathing apparatus). Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Remove all sources of ignition.
Environmental precautions	Prevent further leakage/spillage. Do not let product enter drains/rivers. Discharge into the environment must be avoided.
Methods and materials for containment and cleaning up	Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable closed containers for disposal.

SECTION 7: HANDLING AND STORAGE

Handling	Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.
Storage condition	Store in a cool, dry and well-ventilated place. Keep container tightly closed.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls	Ensure adequate ventilation. Install safety shower and eye bath. Good industrial hygiene and safety practice should be followed. Wash hands after handling the product.
Eye/face protection	Face shield and safety glasses, if required.
Hand protection	Handle with gloves. Dispose of contaminated gloves after use. Wash and dry hands.
Skin and Body Protection	Impervious protective clothing and boots, if required.
Respiratory protection	Use half or full-face respirator with multi-purpose combination. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	clear colourless liquid
Odour	Sweet
Odour Threshold	24.9 - 611.7 ppm
pH	at 20 °C neutral
Melting/freezing point	-95.0 °C
Boiling point/range	40 °C at 1,013 hPa
Flash point	no data available
Evapouration rate	no data available
Vapour pressure	475 hPa at 20 °C
Vapour density	2.93
Relative density	no data available
Water solubility	20 g/l at 20 °C
LogPow	1.25
Auto-ignition temperature	no data available
Decomposition temperature	> 120 °C
Viscosity	0.43 mPa.s at 20 °C
Explosive properties	no data available
Oxidizing properties	no data available

SECTION 10: STABILITY AND REACTIVITY

Reactivity	no data available
Stability	Sensitivity to light Stabilizer, 2-methyl-2-butene
Incompatibilities	rubber, various plastics, Light metals, Metals, Mild steel
Hazardous decomposition products	Hydrogen chloride gas, Phosgene
Conditions to avoid	no data available

Skin corrosion/irritation	Rabbit Result: Irritations
Serious eye damage/irritation	Rabbit Result: Eye Irritations
Respiratory/skin sensitization	Local lymph node assay (LLNA) Mouse Result: negative
Germ cell mutagenicity	Genotoxicity in vitro Mutagenicity (mammal cell test): chromosome aberration. Result: positive
Carcinogenicity	no data available
Reproductive toxicity	no data available
Specific target organ toxicity	Single exposure**:** May cause respiratory irritation. May cause drowsiness or dizziness.
Specific target organ toxicity	Repeated exposure**:** no data available
Aspiration hazard	no data available
RTECS	Not available

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

Toxicity to fish	flow-through test LC50 Pimephales promelas (fathead minnow): 193 mg/l; 96 h
Toxicity to daphnia and other aquatic invertebrates	static test EC50 Daphnia magna (Water flea): 27 mg/l; 48 h
Persistence/degradation	Biodegradability 68 %; 28 d; aerobic Readily biodegradable
Environmental	no data available

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose of contaminated packaging or unused product as per local law and regulations.
There are many pieces of legislation covering waste disposal and they differ in each state and territory, so each user must refer to laws operating in their area. Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste.

SECTION 14: TRANSPORT INFORMATION

UN number	1593
Proper shipping name	Dichloro Methane
Hazard class	6.1
Packaging group	III

SECTION 15: REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.
Safety, health and environmental regulations/legislation specific for the substance/mixture: no data available

SECTION 16: OTHER INFORMATION

Product Use: Laboratory Reagent.

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Material Safety Data Sheet

Chemistry beyond chemicals

SECTION 1: IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

Chemical name	Methanol for Pesticide Residue Trace Analysis
Cat No.	PR0091
CAS-No.	67-56-1
M.W.	32.04
EC-No.	200-659-6
Company	
Email	

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Component(s)	Methyl Alcohol
CAS No.	67-56-1
Percent	>99.9%
Substance/Mixture	Substance
Synonym	Carbinol
Chemical Formula	CH_3OH

SECTION 3: HAZARDS IDENTIFICATION

GHS CLASSIFICATION

Flammable liquids	(Category 2)
Acute toxicity, Oral	(Category 3)
Acute toxicity, Inhalation	(Category 3)
Acute toxicity, Dermal	(Category 3)
Specific target organ toxicity - single exposure	(Category 1)

GHS LABEL ELEMENTS

Pictograms or Hazard Symbols

Signal word

Danger

Hazard statement(s)

H225	Highly flammable liquid and vapour.
H301	Toxic if swallowed.
H311	Toxic in contact with skin
H331	Toxic if inhaled.
H370	Causes damage to organs.

Precautionary statement(s)

P210	Keep away from heat, hot surfaces, sparks, open flames and otherignition sources. No smoking.
P260	Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P280	Wear protective gloves/ protective clothing.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P311	Call a POISON CENTER or doctor/ physician.

Risk Phrases

R11	Highly flammable.
R23/24/25	Toxic by inhalation, in contact with skin and if swallowed.
R39/23/24/25	Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

Safety Phrases

S7	Keep container tightly closed.
S16	Keep away from sources of ignition.
S36/37	Wear suitable protective clothing and gloves.
S45	In case of accident or if you feel unwell, seek medical advice immediately (show the label whenever possible.)

SECTION 4: FIRST AID MEASURES

Inhalation	If breathed in, move victim into fresh air. Keep at comfortable position for breathing. Get medical advice.
Skin contact	Remove contaminated clothes immediately and wash gently with plenty of soap and water. Get medical advice.
Eye contact	Remove contact lenses, if present. Rinse thoroughly with plenty of water for several minutes.

	Get medical advice.
Ingestion	Do NOT induce vomiting. Rinse mouth with water. Get medical advice.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media	Water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special hazards	Carbon oxides
Advice for firefighters	Wear personal protective equipment for fire fighting if necessary.
Further information	Use water spray to cool unopened containers.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions	Use personal protective equipment (self-contained breathing apparatus). Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Remove all sources of ignition.
Environmental precautions	Prevent further leakage/spillage. Do not let product enter drains/rivers. Discharge into the environment must be avoided.
Methods and materials for containment and cleaning up	Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable closed containers for disposal.

SECTION 7: HANDLING AND STORAGE

Handling	Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.
Storage condition	Store in a cool, dry and well-ventilated place. Keep container tightly closed.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls	Ensure adequate ventilation. Install safety shower and eye bath. Good industrial hygiene and safety practice should be followed. Wash hands after handling the product.
Eye/face protection	Face shield and safety glasses, if required.
Hand protection	Handle with gloves. Dispose of contaminated gloves after use. Wash and dry hands.
Skin and Body Protection	Impervious protective clothing and boots, if required.
Respiratory protection	Use half or full-face respirator with multi-purpose combination. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	clear colourless liquid
Odour	characteristic
Odour Threshold	10 -20000 ppm
pH	no data available
Melting/freezing point	-98 °C
Boiling point/range	64.5 °C at 1,013 hPa
Flash point	10 °C
Evapouration rate	no data available
Vapour pressure	128 hPa at 20.0 °C
Vapour density	1.11
Relative density	0.790-0.792g
Water solubility	at 20 °C soluble
LogPow	-0.77
Auto-ignition temperature	455.0 °C
Decomposition temperature	no data available
Viscosity	0.597 mPa.s at 20 °C
Explosive properties	no data available
Oxidizing properties	no data available

SECTION 10: STABILITY AND REACTIVITY

Reactivity	Vapours may form explosive mixture with air.
Stability	The product is chemically stable under standard ambient conditions (room temperature)
Incompatibilities	various plastics, magnesium, zinc alloys
Hazardous decomposition products	no data available
Conditions to avoid	Warming

Skin corrosion/irritation	Rabbit Result: No Skin irritation
Serious eye damage/irritation	Rabbit Result: No eye irritation
Respiratory/skin sensitization	Sensitisation test: Guinea pig Result: negative
Germ cell mutagenicity	Genotoxicity in vitro Ames test Salmonella typhimurium Result: negative
Carcinogenicity	no data available
Reproductive toxicity	no data available
Specific target organ toxicity	Single exposure**:** Causes damage to organs.
Specific target organ toxicity	Repeated exposure**:** no data available
Aspiration hazard	no data available
RTECS	PC1400000

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

Toxicity to fish	LC50 Lepomis macrochirus (Bluegill sunfish): 15,400 mg/l; 96 h
Toxicity to daphnia and other aquatic invertebrates	EC50 Daphnia magna (Water flea): > 10,000 mg/l; 48 h
Persistence/degradation	Biodegradability 99 %; 30 d Readily biodegradable
Environmental	Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose of contaminated packaging or unused product as per local law and regulations.
There are many pieces of legislation covering waste disposal and they differ in each state and territory, so each user must refer to laws operating in their area. Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste.

SECTION 14: TRANSPORT INFORMATION

UN number	1230
Proper shipping name	Methanol
Hazard class	3(6.1)
Packaging group	II

SECTION 15: REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.
Safety, health and environmental regulations/legislation specific for the substance/mixture: no data available

SECTION 16: OTHER INFORMATION

Product Use: Laboratory Reagent.

Please read all labels carefully before using product.

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Material Safety Data Sheet

Chemistry beyond chemicals

SECTION 1: IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

Chemical name	n-Heptane for Pesticide Residue Trace Analysis
Cat No.	PR0073
CAS-No.	142-82-5
M.W.	100.21
EC-No.	205-563-8
Company	
Email	

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Component(s)	-
CAS No.	142-82-5
Percent	>99.0%
Substance/Mixture	Substance
Synonym	-
Chemical Formula	$CH_3(CH_2)_5.CH_3$

SECTION 3: HAZARDS IDENTIFICATION

GHS CLASSIFICATION

Flammable liquids	(Category 2)
Skin irritation	(Category 2)
Specific target organ toxicity - single exposure	(Category 3)
Aspiration hazard	(Category 1)
Acute aquatic toxicity	(Category 1)
Chronic aquatic toxicity	(Category 1)

GHS LABEL ELEMENTS

Pictograms or Hazard Symbols

Signal word

Danger

Hazard statement(s)

H225	Highly flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H410	Very toxic to aquatic life with long lasting effects.

Precautionary statement(s)

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261	Avoid breathing vapours.
P273	Avoid release to the environment.
P281	Use personal protective equipment as required.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P331	Do NOT induce vomiting.
P501	Dispose of contents/ container to an approved waste disposal plant.

Risk Phrases

R11	Highly flammable.
R38	Irritating to skin.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R65	Harmful: may cause lung damage if swallowed.
R67	Vapours may cause drowsiness and dizziness.

Safety Phrases

S9	Keep container in a well-ventilated place.
S16	Keep away from sources of ignition.
S29	Do not empty into drains.
S33	Take precautionary measures against static discharges.
S60	This material and its container must be disposed of as hazardous waste.
S61	Avoid release to the environment. Refer to special instructions / safety data sheets.

S62	If swallowed, do not induce vomiting; seek medical advice immediately and show this container or label.

SECTION 4: FIRST AID MEASURES

Inhalation	If breathed in, move victim into fresh air. Keep at comfortable position for breathing. Get medical advice.
Skin contact	Remove contaminated clothes immediately and wash gently with plenty of soap and water. Get medical advice.
Eye contact	Remove contact lenses, if present. Rinse thoroughly with plenty of water for several minutes. Get medical advice.
Ingestion	Do NOT induce vomiting. Rinse mouth with water. Get medical advice.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media	Water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special hazards	Carbon oxides
Advice for firefighters	Wear personal protective equipment for fire fighting if necessary.
Further information	Use water spray to cool unopened containers.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions	Use personal protective equipment (self-contained breathing apparatus). Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Remove all sources of ignition.
Environmental precautions	Prevent further leakage/spillage. Do not let product enter drains/rivers. Discharge into the environment must be avoided.
Methods and materials for containment and cleaning up	Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable closed containers for disposal.

SECTION 7: HANDLING AND STORAGE

Handling	Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.
Storage condition	Store in a cool, dry and well-ventilated place. Keep container tightly closed.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls	Ensure adequate ventilation. Install safety shower and eye bath. Good industrial hygiene and safety practice should be followed. Wash hands after handling the product.
Eye/face protection	Face shield and safety glasses, if required.
Hand protection	Handle with gloves. Dispose of contaminated gloves after use. Wash and dry hands.
Skin and Body Protection	Impervious protective clothing and boots, if required.
Respiratory protection	Use half or full-face respirator with multi-purpose combination. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	clear, colourless liquid
Odour	characteristic
Odour Threshold	no data available
pH	no data available
Melting/freezing point	-90.5 °C
Boiling point/range	97 -98 °C at 1,013 hPa
Flash point	-4.0 °C
Evapouration rate	no data available
Vapour pressure	48 hPa at 20 °C
Vapour density	3.46
Relative density	0.682-0.684g
Water solubility	0.05 g/l at 20 °C
LogPow	4.66
Auto-ignition temperature	no data available
Decomposition temperature	no data available
Viscosity	0.42 mPa.s at 20 °C
Explosive properties	no data available
Oxidizing properties	no data available

SECTION 10: STABILITY AND REACTIVITY

Reactivity	Vapours may form explosive mixture with air.
Stability	The product is chemically stable under standard ambient conditions (room temperature).
Incompatibilities	rubber, various plastics
Hazardous decomposition products	no data available
Conditions to avoid	Warming.

SECTION 11: TOXICOLOGICAL INFORMATION

Skin corrosion/irritation	Causes skin irritation.
Serious eye damage/irritation	Rabbit Result: No eye irritation
Respiratory/skin sensitization	no data available
Germ cell mutagenicity	Genotoxicity in vitro Ames test Salmonella typhimurium Result: negative
Carcinogenicity	no data available
Reproductive toxicity	no data available
Specific target organ toxicity	Single exposure**:** May cause drowsiness or dizziness.
Specific target organ toxicity	Repeated exposure**:** no data available
Aspiration hazard	May be fatal if swallowed and enters airways.
RTECS	Not available

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity	
Toxicity to fish	LC50 Carassius auratus (goldfish): 4 mg/l; 24 h
Toxicity to daphnia and other aquatic invertebrates	no data available
Persistence/degradation	Biodegradability 70 %; 10 d; aerobic (ECHA) Readily biodegradable
Environmental	no data available

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose of contaminated packaging or unused product as per local law and regulations.
There are many pieces of legislation covering waste disposal and they differ in each state and territory, so each user must refer to laws operating in their area. Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste.

SECTION 14: TRANSPORT INFORMATION

UN number	1206
Proper shipping name	n-Heptane
Hazard class	3
Packaging group	II

SECTION 15: REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.
Safety, health and environmental regulations/legislation specific for the substance/mixture: no data available

SECTION 16: OTHER INFORMATION

Product Use: Laboratory Reagent.

Please read all labels carefully before using product.

The above information contained herewith is believed to be accurate. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. This document does not represent any guarantee of the properties of the product. HPLC shall not be held liable for any claims, losses, or damages resulting from handling or from contact with the above product.

Material Safety Data Sheet

Chemistry beyond chemicals

SECTION 1: IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

Chemical name	1-Butane Sulphonic Acid Sodium Salt Anhydrous
Cat No.	012400
CAS-No.	2386-54-1
M.W.	160.17
EC-No.	219-201-1
Company	
Email	

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Component(s)	-
CAS No.	2386-54-1
Percent	99.0%
Substance/Mixture	Substance
Synonym	Sodium 1-butanesulfonate
Chemical Formula	$C_4H_9NaO_3S$

SECTION 3: HAZARDS IDENTIFICATION

This product is not classified as dangerous or hazardous substance/mixture.

SECTION 4: FIRST AID MEASURES

Inhalation	If breathed in, move victim into fresh air. Keep at comfortable position for breathing. Get medical advice.
Skin contact	Remove contaminated clothes immediately and wash gently with plenty of soap and water. Get medical advice.
Eye contact	Remove contact lenses, if present. Rinse thoroughly with plenty of water for several minutes. Get medical advice.
Ingestion	Do NOT induce vomiting. Rinse mouth with water. Get medical advice.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media	Water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special hazards	Sulphur oxides
Advice for firefighters	Wear personal protective equipment for fire fighting if necessary.
Further information	No data available

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions	Use personal protective equipment (self-contained breathing apparatus). Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Remove all sources of ignition.
Environmental precautions	Prevent further leakage/spillage. Do not let product enter drains/rivers. Discharge into the environment must be avoided.
Methods and materials for containment and cleaning up	Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable closed containers for disposal.

SECTION 7: HANDLING AND STORAGE

Handling	Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.
Storage condition	Store in a cool, dry and well-ventilated place. Keep container tightly closed.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls	Ensure adequate ventilation. Install safety shower and eye bath. Good industrial hygiene and safety practice should be followed. Wash hands after handling the product.
Eye/face protection	Face shield and safety glasses, if required.
Hand protection	Handle with gloves. Dispose of contaminated gloves after use. Wash and dry hands.
Skin and Body Protection	Impervious protective clothing and boots, if required.

Respiratory protection	Use half or full-face respirator with multi-purpose combination. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	A White Colour
Odour	No strong odour known.
Odour Threshold	no data available
pH	no data available
Melting/freezing point	> 310 °C
Boiling point/range	no data available
Flash point	no data available
Evapouration rate	no data available
Vapour pressure	no data available
Vapour density	no data available
Relative density	no data available
Water solubility	at 20 °C soluble
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available
Explosive properties	Not classified as explosive
Oxidizing properties	none

SECTION 10: STABILITY AND REACTIVITY

Reactivity	The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.
Stability	The product is chemically stable under standard ambient conditions (room temperature).
Incompatibilities	no data available
Hazardous decomposition products	Sulphur oxides
Conditions to avoid	no data available

SECTION 11: TOXICOLOGICAL INFORMATION

Acute toxicity	No data available
Skin corrosion/irritation	No data available
Serious eye damage/irritation	No data available
Respiratory/skin sensitization	No data available
Germ cell mutagenicity	No data available
Carcinogenicity	IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
Reproductive toxicity	No data available
Specific target organ toxicity	Single exposure**:** No data available
Specific target organ toxicity	Repeated exposure: No data available
Aspiration hazard	No data available
RTECS	No data available

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity	No data available
Persistence/degradation	No data available
Environmental	Discharge into the environment must be avoided.

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose of contaminated packaging or unused product as per local law and regulations.
There are many pieces of legislation covering waste disposal and they differ in each state and territory, so each user must refer to laws operating in their area. Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste.

SECTION 14: TRANSPORT INFORMATION

UN number	-
Proper shipping name	Not Dangerous good
Hazard class	-
Packaging group	-

SECTION 15: REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.
Safety, health and environmental regulations/legislation specific for the substance/mixture: no data available

SECTION 16: OTHER INFORMATION

Product Use: Laboratory Reagent.

Please read all labels carefully before using product.

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Ion Pairing Reagents

CODE	PRODUCT NAME	CAS NO.
012400	1-Butane Sulphonic Acid Sodium Salt Anhydrous AR	2386-54-1
034083	1-Decane Sulphonic Acid Sodium Salt Monohydrate AR	13419-61-9
HP0115	1-Dodecane Sulphonic Acid Sodium Salt 98% AR for HPLC	2386-53-0
HP9178	1-Heptane Sulphonic Acid Sodium Salt Anhydrous AR for HPLC	22767-50-6
HP0177	1-Heptane Sulphonic Acid Sodium Salt Monohydrate (for HPLC) AR	207300-90-1
034505	1-Hexane Sulphonic Acid Sodium Salt Anhydrous AR for HPLC	2832-45-3
HP0180	1-Hexane Sulphonic Acid Sodium Salt Monohydrate (for HPLC) AR	207300-91-2
HP0213	1-Nonane Sulphonic Acid Sodium Salt 99% ARfor HPLC	35192-74-6
HP0216	1-Octane Sulphonic Acid Sodium Salt Anhydrous 99% for HPLC	5324-84-5
013401	1-Octane Sulphonic Acid Sodium Salt Monohydrate (for HPLC) AR	207596-29-0
013510	1-Pentane Sulphonic Acid Sodium Salt Monohydrate AR	207605-40-1

HP0222	1-Pentane Sulphonic Acid Sodium SaltAnhydrous 99% for HPLC	22767-49-3
030835	Cetrimide	1119-97-7
012565	N-Cetyl-N, N, N-Trimethyl Ammonium Bromide AR	57-09-0
HP0265	Sodium Lauryl Sulphate (for HPLC) AR	151-21-3
037032	Tetrabutyl Ammonium Bromide	1643-19-2
037034	Tetrabutyl Ammonium Hydrogen Sulphate	32503-27-8
014009	Tetrabutyl Ammonium Iodide AR	311-28-4
037039	Tetraethyl Ammonium Bromide for Synthesis	71-91-0

Material Safety Data Sheet

Chemistry beyond chemicals

SECTION 1: IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

Chemical name	1-Decane Sulfonic Acid Sodium Salt Monohydrate
Cat No.	034083
CAS-No.	13419-61-9
M.W.	262.33
EC-No.	236-525-9
Company	
Email	

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Component(s)	-
CAS No.	13419-61-9
Percent	99.0 %
Substance/Mixture	Substance
Synonym	Sodium decane-1-sulfonate
Chemical Formula	$C_{10}H_{21}NaO_3S.H_2O$

SECTION 3: HAZARDS IDENTIFICATION

GHS CLASSIFICATION

Acute toxicity, Oral	(Category 4)
Skin irritation	(Category 2)
Eye irritation	(Category 2)

GHS LABEL ELEMENTS

Pictograms or Hazard Symbols

Signal word Warning

Hazard statement(s)

H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.

Precautionary statement(s)

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

SECTION 4: FIRST AID MEASURES

Inhalation	If breathed in, move victim into fresh air. Keep at comfortable position for breathing. Get medical advice.
Skin contact	Remove contaminated clothes immediately and wash gently with plenty of soap and water. Get medical advice.
Eye contact	Remove contact lenses, if present. Rinse thoroughly with plenty of water for several minutes. Get medical advice.
Ingestion	Do NOT induce vomiting. Rinse mouth with water. Get medical advice.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media	Water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special hazards	No data available
Advice for firefighters	Wear personal protective equipment for fire fighting if necessary.
Further information	No data available

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions Use personal protective equipment (self-contained breathing apparatus). Avoid breathing

	vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Remove all sources of ignition.
Environmental precautions	Prevent further leakage/spillage. Do not let product enter drains/rivers. Discharge into the environment must be avoided.
Methods and materials for containment and cleaning up	Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable closed containers for disposal.

SECTION 7: HANDLING AND STORAGE

Handling	Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.
Storage condition	Store in a cool, dry and well-ventilated place. Keep container tightly closed.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls	Ensure adequate ventilation. Install safety shower and eye bath. Good industrial hygiene and safety practice should be followed. Wash hands after handling the product.
Eye/face protection	Face shield and safety glasses, if required.
Hand protection	Handle with gloves. Dispose of contaminated gloves after use. Wash and dry hands.
Skin and Body Protection	Impervious protective clothing and boots, if required.
Respiratory protection	Use half or full-face respirator with multi-purpose combination. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	A white crystalline powder
Odour	no data available
Odour Threshold	no data available
pH	no data available
Melting/freezing point	300 °C
Boiling point/range	no data available
Flash point	no data available
Evapouration rate	no data available
Vapour pressure	no data available
Vapour density	no data available
Relative density	no data available
Water solubility	Soluble
Auto-ignition temperature	No data available
Decomposition temperature	no data available
Viscosity	no data available
Explosive properties	no data available
Oxidizing properties	no data available

SECTION 10: STABILITY AND REACTIVITY

Reactivity	no data available
Stability	Stable under recommended storage conditions
Incompatibilities	Strong oxidizing agents
Hazardous decomposition products	No data available
Conditions to avoid	no data available

SECTION 11: TOXICOLOGICAL INFORMATION

Acute toxicity	No data available
Skin corrosion/irritation	No data available
Serious eye damage/irritation	No data available
Respiratory/skin sensitization	No data available
Germ cell mutagenicity	No data available
Carcinogenicity	IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity	No data available
Specific target organ toxicity	Single exposure: No data available
Specific target organ toxicity	Repeated exposure: No data available
Aspiration hazard	No data available
RTECS	No data available

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity	No data available
Persistence/degradation	No data available
Environmental	No data available

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose of contaminated packaging or unused product as per local law and regulations.
There are many pieces of legislation covering waste disposal and they differ in each state and territory, so each user must refer to laws operating in their area. Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste.

SECTION 14: TRANSPORT INFORMATION

UN number	-
Proper shipping name	Not Dangerous good
Hazard class	-
Packaging group	-

SECTION 15: REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.
Safety, health and environmental regulations/legislation specific for the substance/mixture: no data available

SECTION 16: OTHER INFORMATION

Product Use: Laboratory Reagent.

Please read all labels carefully before using product.

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Material Safety Data Sheet

Chemistry beyond chemicals

SECTION 1: IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

Chemical name	1-Heptane Sulphonic Acid Sodium Salt Anhydrous AR for HPLC
Cat No.	HP9178
CAS-No.	22767-50-6
M.W.	202.24
EC-No.	245-210-5
Company	
Email	

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Component(s)	1-Hexane sulfonic acid sodium salt anhydrous
CAS No.	22767-50-6
Percent	99.0%
Substance/Mixture	Substance
Synonym	Sodium 1-heptanesulfonate
Chemical Formula	$C_7H_{15}NaO_3S$

SECTION 3: HAZARDS IDENTIFICATION

This product is not classified as dangerous or hazardous substance/mixture.

SECTION 4: FIRST AID MEASURES

Inhalation	If breathed in, move victim into fresh air. Keep at comfortable position for breathing. Get medical advice.
Skin contact	Remove contaminated clothes immediately and wash gently with plenty of soap and water. Get medical advice.
Eye contact	Remove contact lenses, if present. Rinse thoroughly with plenty of water for several minutes. Get medical advice.
Ingestion	Do NOT induce vomiting. Rinse mouth with water. Get medical advice.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media	Water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special hazards	Carbon oxides, Sulphur oxides.
Advice for firefighters	Wear personal protective equipment for fire fighting if necessary.
Further information	no data available

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions	Use personal protective equipment (self-contained breathing apparatus). Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Remove all sources of ignition.
Environmental precautions	Prevent further leakage/spillage. Do not let product enter drains/rivers. Discharge into the environment must be avoided.
Methods and materials for containment and cleaning up	Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable closed containers for disposal.

SECTION 7: HANDLING AND STORAGE

Handling	Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.
Storage condition	Store in a cool, dry and well-ventilated place. Keep container tightly closed.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls	Ensure adequate ventilation. Install safety shower and eye bath. Good industrial hygiene and safety practice should be followed. Wash hands after handling the product.
Eye/face protection	Face shield and safety glasses, if required.
Hand protection	Handle with gloves. Dispose of contaminated gloves after use. Wash and dry hands.
Skin and Body Protection	Impervious protective clothing and boots, if required.
Respiratory protection	Use half or full-face respirator with multi-purpose combination. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards.

ECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	white crystalline powder
Odour	no data available
Odour Threshold	no data available
pH	no data available
Melting/freezing point	300°C
Boiling point/range	no data available
Flash point	no data available
Evapouration rate	no data available
Vapour pressure	no data available
Vapour density	no data available
Relative density	no data available
Water solubility	no data available
LogPow	no data available
Auto-ignition temperature	no data available
Decomposition temperature	no data available
Viscosity	no data available
Explosive properties	no data available
Oxidizing properties	no data available

SECTION 10: STABILITY AND REACTIVITY

Reactivity	no data available
Stability	Stable under recommended storage conditions.
Incompatibilities	Strong oxidizing agents.
Hazardous decomposition products	Carbon oxides, Sulphur oxides
Conditions to avoid	no data available

SECTION 11: TOXICOLOGICAL INFORMATION

Skin corrosion/irritation	no data available
Serious eye damage/irritation	no data available
Respiratory/skin sensitization	no data available
Germ cell mutagenicity	no data available
Carcinogenicity	**I**ARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
Reproductive toxicity	no data available
Specific target organ toxicity	Single exposure**:** no data available
Specific target organ toxicity	Repeated exposure**:** no data available
Aspiration hazard	no data available
RTECS	Not available

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

Toxicity to fish	no data available
Toxicity to daphnia and other aquatic invertebrates	no data available
Persistence/degradation	no data available
Environmental	no data available

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose of contaminated packaging or unused product as per local law and regulations.
There are many pieces of legislation covering waste disposal and they differ in each state and territory, so each user must refer to laws operating in their area. Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste.

SECTION 14: TRANSPORT INFORMATION

UN number	-
Proper shipping name	Not Dangerous goods.
Hazard class	-
Packaging group	-

SECTION 15: REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

Safety, health and environmental regulations/legislation specific for the substance/mixture: no data available

SECTION 16: OTHER INFORMATION

Product Use: Laboratory Reagent.

Please read all labels carefully before using product.

The above information contained herewith is believed to be accurate. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. This document does not represent any guarantee of the properties of the product. HPLC shall not be held liable for any claims, losses, or damages resulting from handling or from contact with the above product.

Material Safety Data Sheet

Chemistry beyond chemicals

SECTION 1: IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

Chemical name	1-Heptane Sulphonic Acid Sodium Salt Monohydrate
Cat No.	HP0177
CAS-No.	207300-90-1
M.W.	220.27
EC-No.	
Company	
Email	

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Component(s)	-
CAS No.	207300-90-1
Percent	99.0%
Substance/Mixture	Substance
Synonym	Sodium 1-heptanesulfonic monohydrate
Chemical Formula	$C_7H_{15}NaO_3S.H_2O$

SECTION 3: HAZARDS IDENTIFICATION

GHS Elements

Risk Phrase R36/37/38 : Irritating to eyes, respiratory system and skin.

Safety Phrase S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S37/39: Wear suitable gloves and eye/face protection.

SECTION 4: FIRST AID MEASURES

Inhalation	If breathed in, move victim into fresh air. Keep at comfortable position for breathing. Get medical advice.
Skin contact	Remove contaminated clothes immediately and wash gently with plenty of soap and water. Get medical advice.
Eye contact	Remove contact lenses, if present. Rinse thoroughly with plenty of water for several minutes. Get medical advice.
Ingestion	Do NOT induce vomiting. Rinse mouth with water. Get medical advice.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media	Water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special hazards	Nature of decomposition products not known.
Advice for firefighters	Wear personal protective equipment for firefighting if necessary.
Further information	Use water spray to cool unopened containers.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions	Use personal protective equipment (self-contained breathing apparatus). Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Remove all sources of ignition.
Environmental precautions	Prevent further leakage/spillage. Do not let product enter drains/rivers. Discharge into the environment must be avoided.
Methods and materials for containment and cleaning up	Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable closed containers for disposal.

SECTION 7: HANDLING AND STORAGE

Handling	Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.
Storage condition	Store in a cool, dry and well-ventilated place. Keep container tightly closed.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls	Ensure adequate ventilation. Install safety shower and eye bath. Good industrial hygiene and safety practice should be followed. Wash hands after handling the product.
Eye/face protection	Face shield and safety glasses, if required.

Hand protection	Handle with gloves. Dispose of contaminated gloves after use. Wash and dry hands.
Skin and Body Protection	Impervious protective clothing and boots, if required.
Respiratory protection	Use half or full-face respirator with multi-purpose combination. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Crystalline
Odour	no data available
Odour Threshold	no data available
pH	5-6
Melting/freezing point	300^{0}C
Boiling point/range	no data available
Flash point	no data available
Evapouration rate	no data available
Vapour pressure	no data available
Vapour density	no data available
Relative density	no data available
Water solubility	no data available
LogPow	no data available
Auto-ignition temperature	no data available
Decomposition temperature	no data available
Viscosity	no data available
Explosive properties	no data available
Oxidizing properties	no data available

SECTION 10: STABILITY AND REACTIVITY

Reactivity	no data available
Stability	Stable under recommended storage conditions.
Incompatibilities	Brass, Iron and iron salts, Powdered metals, Copper, Iron, Zinc, Nickel
Hazardous decomposition products	no data available
Conditions to avoid	no data available

SECTION 11: TOXICOLOGICAL INFORMATION

Skin corrosion/irritation	no data available
Serious eye damage/irritation	no data available
Respiratory/skin sensitization	no data available
Germ cell mutagenicity	no data available
Carcinogenicity	no data available
Reproductive toxicity	no data available
Specific target organ toxicity	Single exposure**:** no data available
Specific target organ toxicity	Repeated exposure**:** no data available
Aspiration hazard	no data available
RTECS	Not available

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

Toxicity to fish	no data available
Toxicity to daphnia and other aquatic invertebrates	no data available
Persistence/degradation	no data available
Environmental	no data available

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose of contaminated packaging or unused product as per local law and regulations.
There are many pieces of legislation covering waste disposal and they differ in each state and territory, so each user must refer to laws operating in their area. Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste.

SECTION 14: TRANSPORT INFORMATION

UN number	-

Proper shipping name	Not dangerous goods
Hazard class	-
Packaging group	-

SECTION 15: REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.
Safety, health and environmental regulations/legislation specific for the substance/mixture: no data available

SECTION 16: OTHER INFORMATION

Product Use: Laboratory Reagent.

Please read all labels carefully before using product.

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Material Safety Data Sheet

Chemistry beyond chemicals

SECTION 1: IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

Chemical name	1-Hexane sulfonic acid sodium salt anhydrous AR for HPLC
Cat No.	034505
CAS-No.	2832-45-3
M.W.	188.22
EC-No.	220-601-3
Company	
Email	

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Component(s)	1-Hexane sulfonic acid sodium salt anhydrous
CAS No.	2832-45-3
Percent	99.0%
Substance/Mixture	Substance
Synonym	Sodium 1-hexane sulphonate
Chemical Formula	$C_6H_{13}NaO_3S$

SECTION 3: HAZARDS IDENTIFICATION

This product is not classified as dangerous or hazardous substance/mixture.

SECTION 4: FIRST AID MEASURES

Inhalation	If breathed in, move victim into fresh air. Keep at comfortable position for breathing. Get medical advice.
Skin contact	Remove contaminated clothes immediately and wash gently with plenty of soap and water. Get medical advice.
Eye contact	Remove contact lenses, if present. Rinse thoroughly with plenty of water for several minutes. Get medical advice.
Ingestion	Do NOT induce vomiting. Rinse mouth with water. Get medical advice.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media	Water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special hazards	Carbon oxides, Sulphur oxides.
Advice for firefighters	Wear personal protective equipment for fire fighting if necessary.
Further information	no data available

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions	Use personal protective equipment (self-contained breathing apparatus). Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Remove all sources of ignition.
Environmental precautions	Prevent further leakage/spillage. Do not let product enter drains/rivers. Discharge into the environment must be avoided.
Methods and materials for containment and cleaning up	Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable closed containers for disposal.

SECTION 7: HANDLING AND STORAGE

Handling	Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.
Storage condition	Store in a cool, dry and well-ventilated place. Keep container tightly closed.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls	Ensure adequate ventilation. Install safety shower and eye bath. Good industrial hygiene and safety practice should be followed. Wash hands after handling the product.
Eye/face protection	Face shield and safety glasses, if required.
Hand protection	Handle with gloves. Dispose of contaminated gloves after use. Wash and dry hands.
Skin and Body Protection	Impervious protective clothing and boots, if required.
Respiratory protection	Use half or full-face respirator with multi-purpose combination. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards.

ECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	white crystalline powder
Odour	no data available
Odour Threshold	no data available
pH	no data available
Melting/freezing point	300°C
Boiling point/range	no data available
Flash point	no data available
Evapouration rate	no data available
Vapour pressure	no data available
Vapour density	no data available
Relative density	no data available
Water solubility	no data available
LogPow	no data available
Auto-ignition temperature	no data available
Decomposition temperature	no data available
Viscosity	no data available
Explosive properties	no data available
Oxidizing properties	no data available

SECTION 10: STABILITY AND REACTIVITY

Reactivity	no data available
Stability	Stable under recommended storage conditions.
Incompatibilities	Strong oxidizing agents.
Hazardous decomposition products	Carbon oxides, Sulphur oxides
Conditions to avoid	no data available

SECTION 11: TOXICOLOGICAL INFORMATION

Skin corrosion/irritation	no data available
Serious eye damage/irritation	no data available
Respiratory/skin sensitization	no data available
Germ cell mutagenicity	no data available
Carcinogenicity	ARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
Reproductive toxicity	no data available
Specific target organ toxicity	Single exposure**:** no data available
Specific target organ toxicity	Repeated exposure**:** no data available
Aspiration hazard	no data available
RTECS	Not available

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

Toxicity to fish	no data available
Toxicity to daphnia and other aquatic invertebrates	no data available
Persistence/degradation	no data available
Environmental	no data available

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose of contaminated packaging or unused product as per local law and regulations.
There are many pieces of legislation covering waste disposal and they differ in each state and territory, so each user must refer to laws operating in their area. Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste.

SECTION 14: TRANSPORT INFORMATION

UN number	-
Proper shipping name	Not Dangerous goods.
Hazard class	-
Packaging group	-

SECTION 15: REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

Safety, health and environmental regulations/legislation specific for the substance/mixture: no data available

SECTION 16: OTHER INFORMATION

Product Use: Laboratory Reagent.

Please read all labels carefully before using product.

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Material Safety Data Sheet

Chemistry beyond chemicals

SECTION 1: IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

Chemical name	1-Hexane Sulphonic acid Sodium Salt Monohydrate AR for HPLC
Cat No.	HP0180
CAS-No.	207300-91-2
M.W.	206.24
EC-No.	220-601-3
Company	
Email	

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Component(s)	-
CAS No.	207300-91-2
Percent	99.0%
Substance/Mixture	Substance
Synonym	-
Chemical Formula	$CH_3.(CH_2)_5SO_3Na.H_2O$

SECTION 3: HAZARDS IDENTIFICATION

SECTION 4: FIRST AID MEASURES

Inhalation	If breathed in, move victim into fresh air. Keep at comfortable position for breathing. Get medical advice.
Skin contact	Remove contaminated clothes immediately and wash gently with plenty of soap and water. Get medical advice.
Eye contact	Remove contact lenses, if present. Rinse thoroughly with plenty of water for several minutes. Get medical advice.
Ingestion	Do NOT induce vomiting. Rinse mouth with water. Get medical advice.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media	Water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special hazards	Nature of decomposition products not known.
Advice for firefighters	Wear personal protective equipment for firefighting if necessary.
Further information	Use water spray to cool unopened containers.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions	Use personal protective equipment (self-contained breathing apparatus). Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Remove all sources of ignition.
Environmental precautions	Prevent further leakage/spillage. Do not let product enter drains/rivers. Discharge into the environment must be avoided.
Methods and materials for containment and cleaning up	Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable closed containers for disposal.

SECTION 7: HANDLING AND STORAGE

Handling	Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.
Storage condition	Store in a cool, dry and well-ventilated place. Keep container tightly closed.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls	Ensure adequate ventilation. Install safety shower and eye bath. Good industrial hygiene and safety practice should be followed. Wash hands after handling the product.
Eye/face protection	Face shield and safety glasses, if required.
Hand protection	Handle with gloves. Dispose of contaminated gloves after use. Wash and dry hands.
Skin and Body Protection	Impervious protective clothing and boots, if required.
Respiratory protection	Use half or full-face respirator with multi-purpose combination. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards.

ECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Solid, White

Odour	no data available
Odour Threshold	no data available
pH	no data available
Melting/freezing point	300^{0}C
Boiling point/range	no data available
Flash point	no data available
Evapouration rate	no data available
Vapour pressure	no data available
Vapour density	no data available
Relative density	no data available
Water solubility	no data available
LogPow	no data available
Auto-ignition temperature	no data available
Decomposition temperature	no data available
Viscosity	no data available
Explosive properties	no data available
Oxidizing properties	no data available

SECTION 10: STABILITY AND REACTIVITY

Reactivity	no data available
Stability	Stable under recommended storage conditions.
Incompatibilities	Brass, Iron and iron salts, Powdered metals, Copper, Iron, Zinc, Nickel
Hazardous decomposition products	no data available
Conditions to avoid	no data available

SECTION 11: TOXICOLOGICAL INFORMATION

Skin corrosion/irritation	no data available
Serious eye damage/irritation	no data available
Respiratory/skin sensitization	no data available
Germ cell mutagenicity	no data available
Carcinogenicity	no data available
Reproductive toxicity	no data available
Specific target organ toxicity	Single exposure**:** no data available
Specific target organ toxicity	Repeated exposure**:** no data available
Aspiration hazard	no data available
RTECS	Not available

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

Toxicity to fish	no data available
Toxicity to daphnia and other aquatic invertebrates	no data available
Persistence/degradation	no data available
Environmental	no data available

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose of contaminated packaging or unused product as per local law and regulations.
There are many pieces of legislation covering waste disposal and they differ in each state and territory, so each user must refer to laws operating in their area. Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste.

SECTION 14: TRANSPORT INFORMATION

UN number	-
Proper shipping name	Not dangerous goods
Hazard class	-
Packaging group	-

SECTION 15: REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.
Safety, health and environmental regulations/legislation specific for the substance/mixture: no data available

SECTION 16: OTHER INFORMATION

Material Safety Data Sheet

Chemistry beyond chemicals

Product Use: Laboratory Reagent.

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Material Safety Data Sheet

Chemistry beyond chemicals

SECTION 1: IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

Chemical name	1-Octane Sulphonic Acid Sodium Salt Anhydrous for HPLC
Cat No.	HP0216
CAS-No.	5324-84-5
M.W.	216.28
EC-No.	226-195-4
Company	
Email	

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Component(s)	-
CAS No.	5324-84-5
Percent	99.0%
Substance/Mixture	Substance
Synonym	Sodium 1-octanesulfonate
Chemical Formula	$C_8H_{17}O_3SNa$

SECTION 3: HAZARDS IDENTIFICATION

This product is not classified as dangerous or hazardous substance/mixture.

SECTION 4: FIRST AID MEASURES

Inhalation	If breathed in, move victim into fresh air. Keep at comfortable position for breathing. Get medical advice.
Skin contact	Remove contaminated clothes immediately and wash gently with plenty of soap and water. Get medical advice.
Eye contact	Remove contact lenses, if present. Rinse thoroughly with plenty of water for several minutes. Get medical advice.
Ingestion	Do NOT induce vomiting. Rinse mouth with water. Get medical advice.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media	Water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special hazards	Carbon oxides, Sulphur oxides.
Advice for firefighters	Wear personal protective equipment for fire fighting if necessary.
Further information	no data available

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions	Use personal protective equipment (self-contained breathing apparatus). Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Remove all sources of ignition.
Environmental precautions	Prevent further leakage/spillage. Do not let product enter drains/rivers. Discharge into the environment must be avoided.
Methods and materials for containment and cleaning up	Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable closed containers for disposal.

SECTION 7: HANDLING AND STORAGE

Handling	Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.
Storage condition	Store in a cool, dry and well-ventilated place. Keep container tightly closed.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls	Ensure adequate ventilation. Install safety shower and eye bath. Good industrial hygiene and safety practice should be followed. Wash hands after handling the product.
Eye/face protection	Face shield and safety glasses, if required.
Hand protection	Handle with gloves. Dispose of contaminated gloves after use. Wash and dry hands.
Skin and Body Protection	Impervious protective clothing and boots, if required.
Respiratory protection	Use half or full-face respirator with multi-purpose combination. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards.

ECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	white crystalline powder
Odour	no data available
Odour Threshold	no data available
pH	no data available
Melting/freezing point	300°C
Boiling point/range	no data available
Flash point	no data available
Evapouration rate	no data available
Vapour pressure	no data available
Vapour density	no data available
Relative density	no data available
Water solubility	no data available
LogPow	no data available
Auto-ignition temperature	no data available
Decomposition temperature	no data available
Viscosity	no data available
Explosive properties	no data available
Oxidizing properties	no data available

SECTION 10: STABILITY AND REACTIVITY

Reactivity	no data available
Stability	Stable under recommended storage conditions.
Incompatibilities	Strong oxidizing agents.
Hazardous decomposition products	Carbon oxides, Sulphur oxides
Conditions to avoid	no data available

SECTION 11: TOXICOLOGICAL INFORMATION

Skin corrosion/irritation	no data available
Serious eye damage/irritation	no data available
Respiratory/skin sensitization	no data available
Germ cell mutagenicity	no data available
Carcinogenicity	**I**ARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
Reproductive toxicity	no data available
Specific target organ toxicity	Single exposure**:** no data available
Specific target organ toxicity	Repeated exposure**:** no data available
Aspiration hazard	no data available
RTECS	Not available

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

Toxicity to fish	no data available
Toxicity to daphnia and other aquatic invertebrates	no data available
Persistence/degradation	no data available
Environmental	no data available

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose of contaminated packaging or unused product as per local law and regulations.
There are many pieces of legislation covering waste disposal and they differ in each state and territory, so each user must refer to laws operating in their area. Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste.

SECTION 14: TRANSPORT INFORMATION

UN number	-
Proper shipping name	Not Dangerous goods.
Hazard class	-
Packaging group	-

SECTION 15: REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

Safety, health and environmental regulations/legislation specific for the substance/mixture: no data available

SECTION 16: OTHER INFORMATION

Product Use: Laboratory Reagent.

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Material Safety Data Sheet

Chemistry beyond chemicals

SECTION 1: IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

Chemical name	1-Pentane Sulphonic Acid Sodium Salt Anhydrous for HPLC
Cat No.	HP0222
CAS-No.	22767-49-3
M.W.	174.19
EC-No.	245-210-5
Company	
Email	

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Component(s)	1-Pentane Sulphonic Acid Sodium Salt Anhydrous
CAS No.	22767-49-3
Percent	99.0%
Substance/Mixture	Substance
Synonym	Sodium 1-pentanesulfonate
Chemical Formula	$C_5H_{11}O_3SNa$

SECTION 3: HAZARDS IDENTIFICATION

This product is not classified as dangerous or hazardous substance/mixture.

SECTION 4: FIRST AID MEASURES

Inhalation	If breathed in, move victim into fresh air. Keep at comfortable position for breathing. Get medical advice.
Skin contact	Remove contaminated clothes immediately and wash gently with plenty of soap and water. Get medical advice.
Eye contact	Remove contact lenses, if present. Rinse thoroughly with plenty of water for several minutes. Get medical advice.
Ingestion	Do NOT induce vomiting. Rinse mouth with water. Get medical advice.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media	Water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special hazards	Carbon oxides, Sulphur oxides.
Advice for firefighters	Wear personal protective equipmentfor fire fighting if necessary.
Further information	no data available

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions	Use personal protective equipment (self-contained breathing apparatus). Avoid breathing vapours, mist or gas. Ensure adequate ventilation.Evacuate personnel to safe areas. Remove all sources of ignition.
Environmental precautions	Prevent further leakage/spillage. Do not let product enter drains/rivers. Discharge into the environment must be avoided.
Methods and materials for containment and cleaning up	Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep insuitable closed containers for disposal.

SECTION 7: HANDLING AND STORAGE

Handling	Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.
Storage condition	Store in a cool, dry and well-ventilated place. Keep container tightly closed.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls	Ensure adequate ventilation. Install safety shower and eye bath. Good industrial hygiene and safety practice should be followed. Wash hands after handling the product.
Eye/face protection	Face shield and safety glasses, if required.

Hand protection	Handle with gloves. Dispose of contaminated gloves after use.Wash and dry hands.
Skin and Body Protection	Impervious protective clothing and boots, if required.
Respiratory protection	Use half or full-face respirator with multi-purpose combination.If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	White crystalline powder.
Odour	odourless
Odour Threshold	no data available
pH	5.5 - 7.5
Melting/freezing point	300°C
Boiling point/range	no data available
Flash point	no data available
Evapouration rate	no data available
Vapour pressure	no data available
Vapour density	no data available
Relative density	no data available
Water solubility	Soluble
LogPow	no data available
Auto-ignition temperature	no data available
Decomposition temperature	no data available
Viscosity	no data available
Explosive properties	no data available
Oxidizing properties	no data available

SECTION 10: STABILITY AND REACTIVITY

Reactivity	no data available
Stability	Stable under recommended storage conditions.
Incompatibilities	Strong oxidizing agents.
Hazardous decomposition products	Carbon oxides, Sulphur oxides
Conditions to avoid	no data available

SECTION 11: TOXICOLOGICAL INFORMATION

Skin corrosion/irritation	no data available
Serious eye damage/irritation	no data available
Respiratory/skin sensitization	no data available
Germ cell mutagenicity	no data available
Carcinogenicity	IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
Reproductive toxicity	no data available
Specific target organ toxicity	Single exposure: no data available
Specific target organ toxicity	Repeated exposure: no data available
Aspiration hazard	no data available
RTECS	Not available

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity	
Toxicity to fish	no data available
Toxicity to daphnia and other aquatic invertebrates	no data available
Persistence/degradation	no data available
Environmental	no data available

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose of contaminated packaging or unused product as per local law and regulations.

There are many pieces of legislation covering waste disposal and they differ in each state and territory, so each user must refer to laws operating in their area. Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste.

SECTION 14: TRANSPORT INFORMATION

UN number	-
Proper shipping name	Not Dangerous goods.
Hazard class	-
Packaging group	-

SECTION 15: REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.
Safety, health and environmental regulations/legislation specific for the substance/mixture:no data available

SECTION 16: OTHER INFORMATION

Product Use: Laboratory Reagent.

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Material Safety Data Sheet

Chemistry beyond chemicals

SECTION 1: IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

Chemical name	Cetrimide
Cat No.	030835
CAS-No.	1119-97-7
M.W.	336.41
EC-No.	214-291-9
Company	
Email	

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Component(s)	-
CAS No.	1119-97-7
Percent	96.0-101.0%
Substance/Mixture	Substance
Synonym	tetradecyltrimethyl ammonium bromide; Myristyltrimethylammonium bromide
Chemical Formula	$C_{17}H_{38}BrN$

SECTION 3: HAZARDS IDENTIFICATION

GHS CLASSIFICATION

Skin corrosion Category 1B

GHS LABEL ELEMENTS

Pictograms or Hazard Symbols

Signal word Danger

Hazard statement(s)

H314 Causes severe skin burns and eye damage.

Precautionary statement(s)

P280 Wear protective gloves/ eye protection/ face protection.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER or doctor/ physician.

Risk Phrases

R34 Causes burns.

Safety Phrases

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label whenever possible.)

SECTION 4: FIRST AID MEASURES

Inhalation	If breathed in, move victim into fresh air. Keep at comfortable position for breathing. Get medical advice.
Skin contact	Remove contaminated clothes immediately and wash gently with plenty of soap and water. Get medical advice.
Eye contact	Remove contact lenses, if present. Rinse thoroughly with plenty of water for several minutes. Get medical advice.
Ingestion	Do NOT induce vomiting. Rinse mouth with water. Get medical advice.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media	Water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special hazards	carbon dioxide.
Advice for firefighters	Wear personal protective equipment for fire fighting if necessary.
Further information	no data available

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions	Use personal protective equipment (self-contained breathing apparatus). Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Remove all sources of ignition.
Environmental precautions	Prevent further leakage/spillage. Do not let product enter drains/rivers. Discharge into the environment must be avoided.
Methods and materials for containment and cleaning up	Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable closed containers for disposal.

SECTION 7: HANDLING AND STORAGE

Handling	Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.
Storage condition	Store in a cool, dry and well-ventilated place. Keep container tightly closed.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls	Ensure adequate ventilation. Install safety shower and eye bath. Good industrial hygiene and safety practice should be followed. Wash hands after handling the product.
Eye/face protection	Face shield and safety glasses, if required.
Hand protection	Handle with gloves. Dispose of contaminated gloves after use. Wash and dry hands.
Skin and Body Protection	Impervious protective clothing and boots, if required.
Respiratory protection	Use half or full-face respirator with multi-purpose combination. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	powder
Odour	No strong odour known.
Odour Threshold	no data available
pH	no data available
Melting/freezing point	245-250 ºC
Boiling point/range	no data available
Flash point	no data available
Evapouration rate	no data available
Vapour pressure	no data available
Vapour density	no data available
Relative density	no data available
Water solubility	soluble
LogPow	no data available
Auto-ignition temperature	no data available
Decomposition temperature	no data available
Viscosity	no data available
Explosive properties	no data available
Oxidizing properties	no data available

SECTION 10: STABILITY AND REACTIVITY

Reactivity	no data available
Stability	Stable under recommended storage conditions.
Incompatibilities	Strong oxidizing agents
Hazardous decomposition products	no data available
Conditions to avoid	Warming.

Skin corrosion/irritation	Causes skin burns.
Serious eye damage/irritation	Causes serious eye damage.
Respiratory/skin sensitization	no data available
Germ cell mutagenicity	no data available
Carcinogenicity	IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
Reproductive toxicity	no data available
Specific target organ toxicity	Single exposure **:** no data available
Specific target organ toxicity	Repeated exposure**:** no data available
Aspiration hazard	no data available
RTECS	Not available

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity	
Toxicity to fish	no data available
Toxicity to daphnia and other aquatic invertebrates	no data available
Persistence/degradation	no data available
Environmental	Discharge into the environment must be avoided.

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose of contaminated packaging or unused product as per local law and regulations.
There are many pieces of legislation covering waste disposal and they differ in each state and territory, so each user must refer to laws operating in their area. Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste.

SECTION 14: TRANSPORT INFORMATION

UN number	1759
Proper shipping name	CORROSIVE SOLID, N.O.S. (TETRADECYLTRIMETHYLAMMONIUMBROMIDE)
Hazard class	8
Packaging group	III

SECTION 15: REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

Safety, health and environmental regulations/legislation specific for the substance/mixture :no data available

SECTION 16: OTHER INFORMATION

Product Use: Laboratory Reagent.

Please read all labels carefully before using product.

The above information contained herewith is believed to be accurate. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. This document does not represent any guarantee of the properties of the product. HPLC shall not be held liable for any claims, losses, or damages resulting from handling or from contact with the above product.

Material Safety Data Sheet

Chemistry beyond chemicals

SECTION 1: IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

Chemical name	N-Cetyl-N,N,N-Trimethyl Ammonium Bromide
Cat No.	012565
CAS-No.	57-09-0
M.W.	364.45
EC-No.	200-311-3
Company	
Email	

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Component(s)	-
CAS No.	57-09-0
Percent	99.0%
Substance/Mixture	Substance
Synonym	Hexadecyltrimethylammonium bromide; Cetrimonium bromide; CTABr
Chemical Formula	$C_{19}H_{42}BrN$

SECTION 3: HAZARDS IDENTIFICATION

GHS CLASSIFICATION

Acute toxicity	Category 4
Skin irritation	Category 2
Serious eye damage	Category 1
Specific target organ toxicity - single exposure	Category 3
Specific target organ toxicity - repeated exposure	Category 2
Acute aquatic toxicity	Category 1
Chronic aquatic toxicity	Category 1

GHS LABEL ELEMENTS

Pictograms or Hazard Symbols

Signal word Danger

Hazard statement(s)

H302 Harmful if swallowed.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H335 May cause respiratory irritation.
H373 May cause damage to organs (Gastrointestinal tract) through prolonged or repeated exposure if swallowed.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statement(s)

P273 Avoid release to the environment.
P280 Wear eye protection.
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P314 Get medical advice/ attention if you feel unwell.

SECTION 4: FIRST AID MEASURES

Inhalation	If breathed in, move victim into fresh air. Keep at comfortable position for breathing. Get medical advice.
Skin contact	Remove contaminated clothes immediately and wash gently with plenty of soap and water. Get medical advice.
Eye contact	Remove contact lenses, if present. Rinse thoroughly with plenty of water for several minutes. Get medical advice.
Ingestion	Do NOT induce vomiting. Rinse mouth with water. Get medical advice.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media	Water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special hazards	hydrogen bromide, nitrogen oxides
Advice for firefighters	Wear personal protective equipment for fire fighting if necessary.
Further information	no data available

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions	Use personal protective equipment (self-contained breathing apparatus). Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Remove all sources of ignition.
Environmental precautions	Prevent further leakage/spillage. Do not let product enter drains/rivers. Discharge into the environment must be avoided.
Methods and materials for containment and cleaning up	Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable closed containers for disposal.

SECTION 7: HANDLING AND STORAGE

Handling	Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.
Storage condition	Store in a cool, dry and well-ventilated place. Keep container tightly closed.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls	Ensure adequate ventilation. Install safety shower and eye bath. Good industrial hygiene and safety practice should be followed. Wash hands after handling the product.
Eye/face protection	Face shield and safety glasses, if required.
Hand protection	Handle with gloves. Dispose of contaminated gloves after use. Wash and dry hands.
Skin and Body Protection	Impervious protective clothing and boots, if required.
Respiratory protection	Use half or full-face respirator with multi-purpose combination. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	A White powder.
Odour	Weak
Odour Threshold	no data available
pH	5 - 7 at 50 g/l 20 °C
Melting/freezing point	237 - 243 °C
Boiling point/range	no data available
Flash point	no data available
Evapouration rate	no data available
Vapour pressure	no data available
Vapour density	no data available
Relative density	no data available
Water solubility	55 g/l at 20 °C
LogPow	2.26
Auto-ignition temperature	no data available
Decomposition temperature	> 230 °C
Viscosity	no data available
Explosive properties	Not classified as explosive.
Oxidizing properties	none

SECTION 10: STABILITY AND REACTIVITY

Reactivity	The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.
Stability	The product is chemically stable under standard ambient conditions (room temperature).
Incompatibilities	Strong oxidizing agents
Hazardous decomposition	hydrogen bromide, nitrogen oxides

products	
Conditions to avoid	no data available

SECTION 11: TOXICOLOGICAL INFORMATION

Acute toxicity	Acute oral toxicity: LD50 Rat: 410 mg/kg
Skin corrosion/irritation	Causes skin irritation.
Serious eye damage/irritation	Causes serious eye Irritations
Respiratory/skin sensitization	Result: Based on available data the classification criteria are not met.
Germ cell mutagenicity	no data available
Carcinogenicity	IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
Reproductive toxicity	no data available
Specific target organ toxicity	Single exposure**:** Target Organs: Respiratory system May cause respiratory irritation.
Specific target organ toxicity	Repeated exposure**:** Target Organs: Gastrointestinal tract May cause damage to organs through prolonged or repeated exposure. Exposure routes: Ingestion Target Organs: Gastrointestinal tract
Aspiration hazard	no data available
RTECS	BQ7875000

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

Toxicity to fish:	semi-static test LC50 Danio rerio (zebra fish): 0.2 mg/l; 96 h
Toxicity to daphnia and other aquatic invertebrates	Immobilization EC50 Daphnia magna (Water flea): 0.037 mg/l; 48 h
Toxicity to algae	Growth rate NOEC Desmodesmus subspicatus (green algae): 0.001 mg/l; 72 h
Toxicity to bacteria	EC50 Photobacterium phosphoreum: 9.8 mg/l; 5 min
Persistence/degradation	Biodegradability 100 %; 11 d; aerobic Chemical oxygen demand Readily biodegradable > 95 %; 48 h
Environmental	Discharge into the environment must be avoided.

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose of contaminated packaging or unused product as per local law and regulations.
There are many pieces of legislation covering waste disposal and they differ in each state and territory, so each user must refer to laws operating in their area. Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste.

SECTION 14: TRANSPORT INFORMATION

UN number	3077
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (HEXADECYLTRIMETHYLAMMONIUMBROMIDE)
Hazard class	9
Packaging group	III

SECTION 15: REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.
Safety, health and environmental regulations/legislation specific for the substance/mixture: no data available

SECTION 16: OTHER INFORMATION

Product Use: Laboratory Reagent.

Please read all labels carefully before using product.

The above information contained herewith is believed to be accurate. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. This document does not represent any guarantee of the properties of the product. HPLC shall not be held liable for any claims, losses, or damages resulting from handling or from contact with the above product.

Material Safety Data Sheet

Chemistry beyond chemicals

SECTION 1: IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

Chemical name	Sodium Lauryl Sulphate for HPLC
Cat No.	HP0265
CAS-No.	151-21-3
M.W.	288.38
EC-No.	-
Company	
Email	

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Component(s)	-
CAS No.	151-21-3
Percent	99.0%
Substance/Mixture	Mixture
Synonym	-
Chemical Formula	-

SECTION 3: HAZARDS IDENTIFICATION

GHS CLASSIFICATION

Substances, which in contact with water, emit flammable gases	Category 1
Corrosive to metals	Category 1
Skin corrosion	Category 1A
Acute toxicity, Oral	Category 3

GHS LABEL ELEMENTS

PICTOGRAMS OR HAZARD SYMBOL

Signal word Danger

Hazard Statements

H228 Flammable solid
H302 Haarmful if swallowed
H311 Toxic in contact with skin
H315 Causes skin irritation
H318 Causes serious eye damage
H335 May Cause respiratory irritation.

Precautionary Statements

P210 Keep away from heat/spark /open flames/hot surfaces-No smoking.
P261 Avoid breathing dust/fumes/mist/gas/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P305 +P351 +P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312 Call a POISON CENTER or doctor/physician if u feel unwell.

SECTION 4: FIRST AID MEASURES

Inhalation	If breathed in, move victim into fresh air. Keep at comfortable position for breathing. Get medical advice.
Skin contact	Remove contaminated clothes immediately and wash gently with plenty of soap and water. Get medical advice.
Eye contact	Remove contact lenses, if present. Rinse thoroughly with plenty of water for several minutes. Get medical advice.
Ingestion	Do NOT induce vomiting. Rinse mouth with water. Get medical advice.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media Water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards	No data available
Advice for firefighters	Wear personal protective equipment for fire fighting if necessary.
Further information	No data available

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions	Use personal protective equipment (self-contained breathing apparatus). Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Remove all sources of ignition.
Environmental precautions	Prevent further leakage/spillage. Do not let product enter drains/rivers. Discharge into the environment must be avoided.
Methods and materials for containment and cleaning up	Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable closed containers for disposal.

SECTION 7: HANDLING AND STORAGE

Handling	Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.
Storage condition	Store in a cool, dry and well-ventilated place. Keep container tightly closed.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls	Ensure adequate ventilation. Install safety shower and eye bath. Good industrial hygiene and safety practice should be followed. Wash hands after handling the product.
Eye/face protection	Face shield and safety glasses, if required.
Hand protection	Handle with gloves. Dispose of contaminated gloves after use. Wash and dry hands.
Skin and Body Protection	Impervious protective clothing and boots, if required.
Respiratory protection	Use half or full-face respirator with multi-purpose combination. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	White crystalline powder.
Odour	no data available
Odour Threshold	no data available
pH	6.5-7.5
Melting/freezing point	no data available
Boiling point/range	no data available
Flash point	no data available
Evapouration rate	no data available
Vapour pressure	no data available
Vapour density	no data available
Relative density	no data available
Water solubility	no data available
Auto-ignition temperature	No data available
Decomposition temperature	no data available
Viscosity	no data available
Explosive properties	no data available
Oxidizing properties	no data available

SECTION 10: STABILITY AND REACTIVITY

Reactivity	no data available
Stability	Stable under recommended storage conditions
Incompatibilities	No data available
Hazardous decomposition products	No data available
Conditions to avoid	no data available

SECTION 11: TOXICOLOGICAL INFORMATION

Acute toxicity	No data available
Skin corrosion/irritation	No data available
Serious eye damage/irritation	No data available
Respiratory/skin sensitization	No data available
Germ cell mutagenicity	No data available
Carcinogenicity	IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
Reproductive toxicity	No data available
Specific target organ toxicity	Single exposure: No data available
Specific target organ toxicity	Repeated exposure: No data available
Aspiration hazard	No data available
RTECS	No data available

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity	No data available
Persistence/degradation	No data available
Environmental	No data available

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose of contaminated packaging or unused product as per local law and regulations.
There are many pieces of legislation covering waste disposal and they differ in each state and territory, so each user must refer to laws operating in their area. Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste.

SECTION 14: TRANSPORT INFORMATION

UN number	2926
Proper shipping name	Sodium dodecylsulphate
Hazard class	4.1(6.1)
Packaging group	II

SECTION 15: REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.
Safety, health and environmental regulations/legislation specific for the substance/mixture: no data available

SECTION 16: OTHER INFORMATION

Product Use: Laboratory Reagent.

Please read all labels carefully before using product.

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Material Safety Data Sheet

Chemistry beyond chemicals

SECTION 1: IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

Chemical name	Tetrabutyl Ammonium Bromide for Synthesis
Cat No.	037032
CAS-No.	1643-19-2
M.W.	322.37
EC-No.	216-699-2
Company	
Email	

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Component(s)	-
CAS No.	1643-19-2
Percent	99.0%
Substance/Mixture	Substance
Synonym	TRAB
Chemical Formula	$C_{16}H_{36}BrN$

SECTION 3: HAZARDS IDENTIFICATION

GHS CLASSIFICATION

Acute toxicity, Oral	Category 4
Eye irritation	Category 2
Long-term (chronic) aquatic hazard	Category 3

GHS LABEL ELEMENTS

Pictograms or Hazard Symbols

Signal word Warning

Hazard statement(s)

H302	Harmful if swallowed.
H319	Causes serious eye irritation.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statement(s)

P273 Avoid release to the environment.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

SECTION 4: FIRST AID MEASURES

Inhalation	If breathed in, move victim into fresh air. Keep at comfortable position for breathing. Get medical advice.
Skin contact	Remove contaminated clothes immediately and wash gently with plenty of soap and water. Get medical advice.
Eye contact	Remove contact lenses, if present. Rinse thoroughly with plenty of water for several minutes. Get medical advice.
Ingestion	Do Not induce vomiting. Rinse mouth with water. Get medical advice.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media	Water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special hazards	Hydrogen bromide, nitrogen oxides
Advice for firefighters	Wear personal protective equipmentfor fire fighting if necessary.
Further information	no data available

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions	Use personal protective equipment (self-contained breathing apparatus). Avoid breathing vapours, mist or gas. Ensure adequate ventilation.Evacuate personnel to safe areas. Remove all sources of ignition.
Environmental precautions	Prevent further leakage/spillage. Do not let product enter drains/rivers.

	Discharge into the environment must be avoided.
Methods and materials for containment and cleaning up	Absorb/Contain spillage in a suitable absorbent (eg. Dry powder, rag , saw-dust), the collected material shall be placed in a container for disposal according to appropriate laws and regulations.

SECTION 7: HANDLING AND STORAGE

Handling	No smoking. Keep away from sources of ignition. Avoid contact with skin and eyes. Wash hands and face thoroughly after handling. Avoid inhalation of vapour or mist. Wear suitable protective equipment.
Storage condition	Store in a cool, dry and well-ventilated place. Keep container tightly closed.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls	Ensure adequate ventilation. Install safety shower and eye bath. Good industrial hygiene and safety practice should be followed. Wash hands after handling the product.
Eye/face protection	Face shield and safety glasses, if required.
Hand protection	Handle with gloves. Dispose of contaminated gloves after use.Wash and dry hands.
Skin and Body Protection	Impervious protective clothing and boots, if required.
Respiratory protection	Use half or full-face respirator with multi-purpose combination.If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	A white to almost white crystalline compound.
Odour	weakly amine-like
Odour Threshold	no data available
pH	no data available
Melting/freezing point	100 - 103 °C
Boiling point/range	no data available
Flash point	no data available
Evapouration rate	no data available
Vapour pressure	no data available
Vapour density	no data available
Relative density	1.15 g/cm3
Water solubility	600 g/l at 20 °C
LogPow	1.71
Auto-ignition temperature	no data available
Decomposition temperature	no data available
Viscosity	no data available
Explosive properties	Not classified as explosive.
Oxidizing properties	none

SECTION 10: STABILITY AND REACTIVITY

Reactivity	no data available
Stability	The product is chemically stable under standard ambient conditions.
Incompatibilities	Strong oxidizing agents
Hazardous decomposition products	Hydrogen bromide, nitrogen oxides
Conditions to avoid	Exposure to moisture

SECTION 11: TOXICOLOGICAL INFORMATION

Acute toxicity	Acute oral toxicity LD50 Rat: > 300 - 2,000 mg/kg Acute dermal toxicity LD50 Rat: > 2,000 mg/kg
Skin corrosion/irritation	Rabbit Result: slight irritation
Serious eye damage/irritation	Rabbit Result: Eye irritation
Respiratory/skin sensitization	Buehler Test Guinea pig Result: negative
Germ cell mutagenicity	no data available
Carcinogenicity	no data available
Reproductive toxicity	no data available
Specific target organ toxicity	Single exposure **:** no data available
Specific target organ toxicity	Repeated exposure **:** no data available
Aspiration hazard	no data available

RTECS	no data available

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

Toxicity to fish	Toxicity to fish static test LC50 Danio rerio (zebra fish): > 100 mg/l; 96 h
Toxicity to daphnia and other aquatic invertebrates	semi-static test EC50 Daphnia magna (Water flea): 50 mg/l; 48 h
Toxicity to algae	static test ErC50 Chlorella vulgaris (Fresh water algae): 204.7 mg/l; 72 h
Toxicity to bacteria	EC50 Vibrio fischeri: 1.862 mg/l; 0.25 h
Persistence/degradation	Biodegradability 0 %; 28 d; aerobic Not readily biodegradable.
Environmental	Discharge into the environment must be avoided.

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose of contaminated packaging or unused product as per local law and regulations.
There are many pieces of legislation covering waste disposal and they differ in each state and territory, so each user must refer to laws operating in their area. Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste.

SECTION 14: TRANSPORT INFORMATION

UN number	-
Proper shipping name	Not Dangerous good.
Hazard class	-
Packaging group	-

SECTION 15: REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.
Safety, health and environmental regulations/legislation specific for the substance/mixture : no data available

SECTION 16: OTHER INFORMATION

Product Use: Laboratory Reagent.
Please read all labels carefully before using product.
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Material Safety Data Sheet

Chemistry beyond chemicals

SECTION 1: IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

Chemical name	Tetrabutyl Ammonium Hydrogen Sulphate for Synthesis
Cat No.	037034
CAS-No.	32053-27-8
M.W.	339.54
EC-No.	251-068-5
Company	
Email	

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Component(s)	-
CAS No.	32053-27-8
Percent	98.0%
Substance/Mixture	Substance
Synonym	TBAHS
Chemical Formula	$(CH_3(CH_2)_3)_4\ NHSO_4$

SECTION 3: HAZARDS IDENTIFICATION

GHS CLASSIFICATION

Skin irritation	(Category 2)
Eye irritation	(Category 2)

GHS LABEL ELEMENTS

Pictograms or Hazard Symbols

Signal word Warning

Hazard statement(s)

H302 Harmful if swallowed.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.

Precautionary statement(s)

P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

SECTION 4: FIRST AID MEASURES

Inhalation	If breathed in, move victim into fresh air. Keep at comfortable position for breathing. Get medical advice.
Skin contact	Remove contaminated clothes immediately and wash gently with plenty of soap and water. Get medical advice.
Eye contact	Remove contact lenses, if present. Rinse thoroughly with plenty of water for several minutes. Get medical advice.
Ingestion	Do Not induce vomiting. Rinse mouth with water. Get medical advice.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media	Water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special hazards	Carbon oxides, Nitrogen oxides (NOx), Sulphur oxides
Advice for firefighters	Wear personal protective equipmentfor fire fighting if necessary.
Further information	no data available

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions	Use personal protective equipment (self-contained breathing apparatus). Avoid breathing vapours, mist or gas. Ensure adequate ventilation.Evacuate personnel to safe areas. Remove all sources of ignition.

Environmental precautions	Prevent further leakage/spillage. Do not let product enter drains/rivers. Discharge into the environment must be avoided.
Methods and materials for containment and cleaning up	Absorb/Contain spillage in a suitable absorbent (eg. Dry powder, rag , saw-dust), the collected material shall be placed in a container for disposal according to appropriate laws and regulations.

SECTION 7: HANDLING AND STORAGE

Handling	No smoking. Keep away from sources of ignition. Avoid contact with skin and eyes. Wash hands and face thoroughly after handling. Avoid inhalation of vapour or mist. Wear suitable protective equipment.
Storage condition	Store in a cool, dry and well-ventilated place. Keep container tightly closed.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls	Ensure adequate ventilation. Install safety shower and eye bath. Good industrial hygiene and safety practice should be followed. Wash hands after handling the product.
Eye/face protection	Face shield and safety glasses, if required.
Hand protection	Handle with gloves. Dispose of contaminated gloves after use.Wash and dry hands.
Skin and Body Protection	Impervious protective clothing and boots, if required.
Respiratory protection	Use half or full-face respirator with multi-purpose combination.If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Form: solid Colour: white
Odour	no data available
Odour Threshold	no data available
pH	1-2 at 100g/l 20^{0}C
Melting/freezing point	169-172°C
Boiling point/range	no data available
Flash point	no data available
Evapouration rate	no data available
Vapour pressure	no data available
Vapour density	no data available
Relative density	no data available
Water solubility	at 20 °C Soluble
LogPow	no data available
Auto-ignition temperature	no data available
Decomposition temperature	no data available
Viscosity	no data available
Explosive properties	Not classified as explosive.
Oxidizing properties	none

SECTION 10: STABILITY AND REACTIVITY

Reactivity	no data available
Stability	The product is chemically stable under standard ambient conditions.
Incompatibilities	Strong oxidizing agents
Hazardous decomposition products	no data available
Conditions to avoid	Exposure to moisture

SECTION 11: TOXICOLOGICAL INFORMATION

Acute toxicity	no data available
Skin corrosion/irritation	no data available
Serious eye damage/irritation	no data available
Respiratory/skin sensitization	no data available
Germ cell mutagenicity	no data available
Carcinogenicity	IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
Reproductive toxicity	no data available
Specific target organ toxicity	Single exposure **:** no data available.
Specific target organ toxicity	Repeated exposure **:** no data available

Aspiration hazard	no data available
RTECS	no data available

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

Toxicity to fish	no data available
Toxicity to daphnia and other aquatic invertebrates	no data available
Persistence/degradation	no data available
Environmental	Discharge into the environment must be avoided.

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose of contaminated packaging or unused product as per local law and regulations.
There are many pieces of legislation covering waste disposal and they differ in each state and territory, so each user must refer to laws operating in their area. Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste.

SECTION 14: TRANSPORT INFORMATION

UN number	-
Proper shipping name	Not Dangerous good.
Hazard class	-
Packaging group	-

SECTION 15: REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.
Safety, health and environmental regulations/legislation specific for the substance/mixture : no data available

SECTION 16: OTHER INFORMATION

Product Use: Laboratory Reagent.
Please read all labels carefully before using product.
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Material Safety Data Sheet

Chemistry beyond chemicals

SECTION 1: IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

Chemical name	Tetrabutyl Ammonium Iodide AR
Cat No.	014009
CAS-No.	311-28-4
M.W.	369.38
EC-No.	
Company	
Email	

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Component(s)	-
CAS No.	311-28-4
Percent	99.0%
Substance/Mixture	Substance
Synonym	N,N,N-Tributyl-1-butanaminiuiodide
Chemical Formula	$C_{16}H_{36}IN$

SECTION 3: HAZARDS IDENTIFICATION

GHS CLASSIFICATION

Eye irritation	Category 2
Skin irritation	Category 2

GHS LABEL ELEMENTS

Pictograms or Hazard Symbols

Signal word Warning

Hazard statement(s)

H302 Harmful if swallowed.
H315 Causes skin irritation.
H319 Causes serious eye irritation.

Precautionary statement(s)

P264 Wash skin thoroughly after handling.
P280 Wear protective gloves/ eye protection/ face protection.
P301 + P312 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell.
P302 + P352 IF ON SKIN: Wash with plenty of water.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332 + P313 If skin irritation occurs: Get medical advice/ attention

SECTION 4: FIRST AID MEASURES

Inhalation	If breathed in, move victim into fresh air. Keep at comfortable position for breathing. Get medical advice.
Skin contact	Remove contaminated clothes immediately and wash gently with plenty of soap and water. Get medical advice.
Eye contact	Remove contact lenses, if present. Rinse thoroughly with plenty of water for several minutes. Get medical advice.
Ingestion	Do Not induce vomiting. Rinse mouth with water. Get medical advice.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media	Water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special hazards	no data available
Advice for firefighters	Wear personal protective equipmentfor fire fighting if necessary.
Further information	no data available

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions	Use personal protective equipment (self-contained breathing apparatus). Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Remove all sources of ignition.
Environmental precautions	Prevent further leakage/spillage. Do not let product enter drains/rivers. Discharge into the environment must be avoided.
Methods and materials for containment and cleaning up	Absorb/Contain spillage in a suitable absorbent (eg. Dry powder, rag , saw-dust), the collected material shall be placed in a container for disposal according to appropriate laws and regulations.

SECTION 7: HANDLING AND STORAGE

Handling	No smoking. Keep away from sources of ignition. Avoid contact with skin and eyes. Wash hands and face thoroughly after handling. Avoid inhalation of vapour or mist. Wear suitable protective equipment.
Storage condition	Store in a cool, dry and well-ventilated place. Keep container tightly closed.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls	Ensure adequate ventilation. Install safety shower and eye bath. Good industrial hygiene and safety practice should be followed. Wash hands after handling the product.
Eye/face protection	Face shield and safety glasses, if required.
Hand protection	Handle with gloves. Dispose of contaminated gloves after use. Wash and dry hands.
Skin and Body Protection	Impervious protective clothing and boots, if required.
Respiratory protection	Use half or full-face respirator with multi-purpose combination.If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	White to off white crystalline compound
Odour	Amine like
Odour Threshold	no data available
pH	no data available
Melting/freezing point	143-146 °C
Boiling point/range	no data available
Flash point	no data available
Evapouration rate	no data available
Vapour pressure	no data available
Vapour density	no data available
Relative density	no data available
Water solubility	soluble in hot water
LogPow	no data available
Auto-ignition temperature	no data available
Decomposition temperature	no data available
Viscosity	no data available
Explosive properties	no data available
Oxidizing properties	no data available

SECTION 10: STABILITY AND REACTIVITY

Reactivity	no data available
Stability	Stable under recommended storage conditions
Incompatibilities	No data available
Hazardous decomposition products	No data available
Conditions to avoid	no data available

SECTION 11: TOXICOLOGICAL INFORMATION

Acute toxicity	No data available

Skin corrosion/irritation	No data available
Serious eye damage/irritation	No data available
Respiratory/skin sensitization	No data available
Germ cell mutagenicity	No data available
Carcinogenicity	IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
Reproductive toxicity	No data available
Specific target organ toxicity	Single exposure: No data available
Specific target organ toxicity	Repeated exposure: No data available
Aspiration hazard	No data available
RTECS	No data available

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity	No data available
Persistence/degradation	No data available
Environmental	No data available

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose of contaminated packaging or unused product as per local law and regulations.
There are many pieces of legislation covering waste disposal and they differ in each state and territory, so each user must refer to laws operating in their area. Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste.

SECTION 14: TRANSPORT INFORMATION

UN number	-
Proper shipping name	Not Dangerous good
Hazard class	-
Packaging group	-

SECTION 15: REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.
Safety, health and environmental regulations/legislation specific for the substance/mixture: no data available

SECTION 16: OTHER INFORMATION

Product Use: Laboratory Reagent.

Please read all labels carefully before using product.

The above information contained herewith is believed to be accurate. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. This document does not represent any guarantee of the properties of the product. HPLC shall not be held liable for any claims, losses, or damages resulting from handling or from contact with the above product.

Material Safety Data Sheet

Chemistry beyond chemicals

SECTION 1: IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

Chemical name	Tetraethyl Ammonium Bromide for synthesis
Cat No.	037039
CAS-No.	71-91-0
M.W.	210.16
EC-No.	200-769-4
Company	
Email	

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Component(s)	-
CAS No.	71-91-0
Percent	98.0%
Substance/Mixture	Substance
Synonym	TEA bromide
Chemical Formula	$C_8H_{20}NBr$

SECTION 3: HAZARDS IDENTIFICATION

This product is not classified as dangerous or hazardous substance/mixture.

SECTION 4: FIRST AID MEASURES

Inhalation	If breathed in, move victim into fresh air. Keep at comfortable position for breathing. Get medical advice.
Skin contact	Remove contaminated clothes immediately and wash gently with plenty of soap and water. Get medical advice.
Eye contact	Remove contact lenses, if present. Rinse thoroughly with plenty of water for several minutes. Get medical advice.
Ingestion	Do Not induce vomiting. Rinse mouth with water. Get medical advice.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media	Water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special hazards	hydrogen bromide, nitrogen oxides
Advice for firefighters	Wear personal protective equipment for fire fighting if necessary.
Further information	no data available

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions	Use personal protective equipment (self-contained breathing apparatus). Avoid breathing vapours, mist or gas. Ensure adequate ventilation.Evacuate personnel to safe areas. Remove all sources of ignition.
Environmental precautions	Prevent further leakage/spillage. Do not let product enter drains/rivers. Discharge into the environment must be avoided.
Methods and materials for containment and cleaning up	Absorb/Contain spillage in a suitable absorbent (eg. Dry powder, rag , saw-dust), the collected material shall be placed in a container for disposal according to appropriate laws and regulations.

SECTION 7: HANDLING AND STORAGE

Handling	No smoking. Keep away from sources of ignition. Avoid contact with skin and eyes. Wash hands and face thoroughly after handling. Avoid inhalation of vapour or mist. Wear suitable protective equipment.
Storage condition	Store in a cool, dry and well-ventilated place. Keep container tightly closed.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls	Ensure adequate ventilation. Install safety shower and eye bath. Good industrial hygiene and safety practice should be followed. Wash hands after handling the product.
Eye/face protection	Face shield and safety glasses, if required.
Hand protection	Handle with gloves. Dispose of contaminated gloves after use.Wash and dry hands.

Skin and Body Protection	Impervious protective clothing and boots, if required.
Respiratory protection	Use half or full-face respirator with multi-purpose combination.If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	White to pale yellow crystals/crystalline powder.
Odour	odourless
Odour Threshold	Not applicable
pH	6.5 at 100 g/l 20 °C
Melting/freezing point	285 °C
Boiling point/range	no data available
Flash point	no data available
Evapouration rate	no data available
Vapour pressure	no data available
Vapour density	no data available
Relative density	1.397 g/cm3 at 20 °C
Water solubility	2,795 g/l at 25 °C
LogPow	no data available
Auto-ignition temperature	no data available
Decomposition temperature	> 285 °C
Viscosity	no data available
Explosive properties	Not classified as explosive.
Oxidizing properties	none

SECTION 10: STABILITY AND REACTIVITY

Reactivity	The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.
Stability	The product is chemically stable under standard ambient conditions (room temperature)
Incompatibilities	Strong oxidizing agents
Hazardous decomposition products	Hydrogen bromide, nitrogen oxides
Conditions to avoid	Temperatures above melting point.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute toxicity	no data available
Skin corrosion/irritation	no data available
Serious eye damage/irritation	no data available
Respiratory/skin sensitization	no data available
Germ cell mutagenicity	no data available
Carcinogenicity	no data available
Reproductive toxicity	no data available
Specific target organ toxicity	Single exposure **:** no data available
Specific target organ toxicity	Repeated exposure **:** no data available
Aspiration hazard	no data available
RTECS	no data available

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity	
Toxicity to fish	LC50 Leuciscus idus (Golden orfe): > 100 mg/l
Persistence/degradation	no data available
Environmental	Discharge into the environment must be avoided

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose of contaminated packaging or unused product as per local law and regulations.
There are many pieces of legislation covering waste disposal and they differ in each state and territory, so each user must refer to laws operating in their area. Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste.

По вопросам продаж и поддержки обращайтесь:

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Ангарск (3955)60-70-56
Архангельск (8182)63-90-72
Астрахань (8512)99-46-04
Барнаул (3852)73-04-60
Белгород (4722)40-23-64
Благовещенск (4162)22-76-07
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Пенза (8412)22-31-16
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