Электронные химикаты EL

Технические характеристики

Виды товаров: 2-пропанол, уксусная кислота, ацетон, акриламид, адипат аммония марки, нитрат бари, бензол, плавиковая кислота, метанол, трихлорэтилен марки, вода класса EL и др.

По вопросам продаж и поддержки обращайтесь:

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Electronic Grade

EL0051	2-Propanol EL grade	67-63-0
EL0001	Acetic Acid Glacial EL Grade	64-19-7
EL0002	Acetone EL Grade	67-64-1
EL0005	Acrylamide 99.5% for Electrophoresis3x Crystallised	79-06-1
030022	Acrylamide 99.9% for Electrophoresis	79-06-1
EL0000	Ammonium Adipate EL Grade	3385-41-9
EL0011	Barium Nitrate EL Grade	10022-31-8
EL0014	Benzene EL Grade	71-43-2
EL0500	Hydrofluoric Acid 40% EL	7664-39-3
EL0501	Hydrofluoric Acid 48% EL	7664-39-3
EL0031	Methanol EL	67-56-1
EL0071	Trichloroethylene EL grade	79-01-6

Material Safety Data Sheet

Chemistry beyond chemicals

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

Chemical name	Hydrofluoric Acid 40% EL
Cat No.	EL0500
CAS-No.	7664-39-3
M.W.	20.01
EC-No.	231-634-8

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Component(s)	
CAS No.	7664-39-3
Percent	40-42%
Substance/Mixture	Substance
Synonym	-
Chemical Formula	HF

SECTION 3: HAZARDS IDENTIFICATION

GHS CLASSIFICATION

Acute toxicity, Oral	(Category 2)
Acute toxicity, Inhalation	(Category 2)
Acute toxicity, Dermal	(Category 1)
Skin corrosion	(Category 1A)

GHS LABEL ELEMENTS

Pictograms or Hazard Symbols

Signal word Danger

Hazard statement(s)

H300 + H310 + H330	Fatal if swallowed, in contact with skin or if inhaled
H314	Causes severe skin burns and eye damage.

Precautionary statement(s)

P260	Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P264	Wash hands thoroughly after handling.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P284	Wear respiratory protection.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P302 + P350	IF ON SKIN: Gently wash with plenty of soap and water.

Risk Phrases

R26/27/28	Very toxic by inhalation, in contact with skin and if swallowed.
R35	Causes severe burns.

Safety Phrases

S7/9	Keep container tightly closed and in a well-ventilated place.
S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
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 where 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	Hydrogen fluoride
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 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 liquid
Odour	Stinging
Odour Threshold	no data available
pH	ca.2 at 20 °C
Melting/freezing point	ca. -35 °C
Boiling point/range	ca. 106 °C at 1,013 hPa
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	no data available
Oxidizing properties	no data available

SECTION 10: STABILITY AND REACTIVITY

Reactivity	no data available
Stability	The product is chemically stable under standard ambient conditions (room temperature).
Incompatibilities	glass, Metals, quartzes/silicate ceramics Gives off hydrogen by reaction with metals.
Hazardous decomposition products	Hydrogen fluoride
Conditions to avoid	Heating.

SECTION 11: TOXICOLOGICAL INFORMATION

Skin corrosion/irritation	Mixture causes severe burns.
Serious eye damage/irritation	Mixture causes serious eye damage. Risk of blindness!

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	1790
Proper shipping name	Hydrofluoric Acid
Hazard class	8(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

ISO 9001:2008 CERTIFIED HPLC Lab Reagents TM

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

Chemical name	Trichloroethylene EL Grade
Cat No.	EL0071
CAS-No.	79-01-6
M.W.	131.39
EC-No.	201-167-4

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Component(s)	-
CAS No.	79-01-6
Percent	99.7%
Substance/Mixture	Substance
Synonym	Ethylene trichloride ;TCE
Chemical Formula	$CHCl:CCl_2$

SECTION 3: HAZARDS IDENTIFICATION

GHS CLASSIFICATION

Skin irritation	(Category 2)
Eye irritation	(Category 2)
Germ cell mutagenicity	(Category 2)
Carcinogenicity	(Category 1B)
Specific target organ toxicity - single exposure	(Category 3)
Chronic aquatic toxicity	(Category 3)

GHS LABEL ELEMENTS

Pictograms or Hazard Symbols

Signal word Danger

Hazard statement(s)

H315 Causes skin irritation.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.
H341 Suspected of causing genetic defects.
H350 May cause cancer.
H371 May cause damage to organs.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statement(s)

P201 Obtain special instructions before use.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P273 Avoid release to the environment.
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.
P308 + P313 IF exposed or concerned: 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	Carbon oxides, Hydrogen chloride gas.
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 colorless liquid
Odour	no data available
Odour Threshold	no data available
pH	no data available
Melting/freezing point	-84.8°C
Boiling point/range	86-87°C
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	Insoluble
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	Oxidizing agents, Strong bases, Magnesium.
Hazardous decomposition products	no data available
Conditions to avoid	no data available

SECTION 11: TOXICOLOGICAL INFORMATION

Skin corrosion/irritation	Skin – Rabbit	Result: Severe skin irritation - 24 h
Serious eye damage/irritation	Eyes – Rabbit	Result: Eye irritation - 24 h
Respiratory/skin sensitization	no data available	
Germ cell mutagenicity	Laboratory experiments have shown mutagenic effects. In vitro tests showed mutagenic effects	
Carcinogenicity	This product is or contains a component that has been reported to be probably carcinogenic based on its IARC, OSHA, ACGIH, NTP, or EPA classification. Possible human carcinogen IARC: 1 - Group 1: Carcinogenic to humans (Trichloroethylene)	
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	KX4550000	

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

Toxicity to fish	LC50 - Pimephales promelas (fathead minnow) - 41 mg/l – 96.0 h LOEC - other fish - 11 mg/l – 10.0 d NOEC - Oryzias latipes - 40 mg/l – 10.0 d
Toxicity to daphnia and other aquatic invertebrates	EC50 - Daphnia magna (Water flea) – 18.00 mg/l - 48 h
Toxicity to algae	IC50 - Pseudokirchneriella subcapitata (green algae) – 175.00 mg/l - 96 h
Persistence/degradation	no data available
Environmental	Harmful to aquatic life with long lasting effects.

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic 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	1710
Proper shipping name	Trichloroethylene
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	2-Propanol EL Grade
Cat No.	EL0051
CAS-No.	67-63-0
M.W.	60.10
EC-No.	-

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.

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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 EL
Cat No.	EL0031
CAS-No.	67-56-1
M.W.	32.04
EC-No.	200-659-6

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

SECTION 11: TOXICOLOGICAL INFORMATION

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	Barium Nitrate
Cat No.	EL0011
CAS-No.	10022-31-8
M.W.	261.34
EC-No.	233-020-5

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Component(s)	-
CAS No.	10022-31-8
Percent	>99.5%
Substance/Mixture	Substance
Synonym	-
Chemical Formula	$Ba(NO_3)_2$

SECTION 3: HAZARDS IDENTIFICATION

GHS CLASSIFICATION

Oxidizing solids	(Category 2)
Acute toxicity, Oral	(Category 4)
Acute toxicity, Inhalation	(Category 4)
Eye irritation	(Category 2)

GHS LABEL ELEMENTS

Pictograms or Hazard Symbols

Signal word Danger

Hazard statement(s)

H272	May intensify fire; oxidizer.
H301	Toxic if swallowed.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.

Precautionary statement(s)

P221 Take any precaution to avoid mixing with combustibles/…

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/physician.

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	Barium oxide, Nitrogen 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	White crystalline powder
Odour	odourless
Odour Threshold	no data available
pH	5.0 - 8.0 at 50 g/l 25 °C
Melting/freezing point	ca. 592 °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	3.23 g/cm^3
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	Acid anhydrides, Reducing agents, Acids, Bases
Hazardous decomposition Products	Barium oxide, Nitrogen oxides
Conditions to avoid	Avoid moisture. Heat

SECTION 11: TOXICOLOGICAL INFORMATION

Skin corrosion/irritation	Skin-Rabbit Result: Mild skin irritation
Serious eye damage/irritation	Eyes-Rabbit Result: Moderate eye irritation
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	CQ9625000

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	1446
Proper shipping name	Barium Nitrate
Hazard class	5.1(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.

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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	Acrylamide for Electrophoresis
Cat No.	EL0005
CAS-No.	79-06-1
M.W.	71.08
EC-No.	201-173-7

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Component(s)	-
CAS No.	79-06-1
Percent	> 99.5%
Substance/Mixture	Substance
Synonym	Ethylenecarboxamide; 2-Propenamide
Chemical Formula	C_3H_5NO

SECTION 3: HAZARDS IDENTIFICATION

GHS CLASSIFICATION

Carcinogenicity	(Category 1B)
Germ cell mutagenicity	(Category 1B)
Reproductive toxicity	(Category 2)
Acute toxicity, Oral	(Category 3)
Specific target organ toxicity -repeated exposure	(Category 1)
Acute toxicity, Inhalation	(Category 4)
Acute toxicity, Dermal	(Category 4)
Eye irritation	(Category 2)
Skin irritation	(Category 2)
Skin sensitization	(Category 1)

GHS LABEL ELEMENTS

Pictograms or Hazard Symbols

Signal word Danger

Hazard statement(s)

H301	Toxic if swallowed.
H312 + H332	Harmful in contact with skin or if inhaled
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H340	May cause genetic defects.
H350	May cause cancer.
H361f	Suspected of damaging fertility.
H372	Causes damage to organs through prolonged or repeated exposure.

Precautionary statement(s)

P201	Obtain special instructions before use.
P280	Wear protective gloves/ protective clothing.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor.
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 + P313	IF exposed or concerned: 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	Carbon oxides, Nitrogen oxides (NOx)
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	Colourless crystaline powder.
Odour	Odourless
Odour Threshold	no data available
pH	no data available
Melting/freezing point	82-86 °C
Boiling point/range	125 °C at 33.3 hPa
Flash point	138 °C
Evapouration rate	no data available
Vapour pressure	0.009 hPa at 25 °C
Vapour density	2.45
Relative density	no data available
Water solubility	soluble
LogPow	-0.9 (20 °C)
Auto-ignition temperature	no data available
Decomposition temperature	175 - 300 °C
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	Acids, Oxidizing agents, Iron and iron salts., Copper, Brass, Free radical initiators
Hazardous decomposition products	Carbon oxides, Nitrogen oxides (NOx)
Conditions to avoid	No data available

Serious eye damage/irritation	Eyes-Rabbit Result: Irritating to eyes.
Respiratory/skin sensitization	Maximisation Test-Guinea pig May cause allergic skin reaction.
Germ cell mutagenicity	May alter genetic material. In vivo tests showed mutagenic effects
Carcinogenicity	This product is or contains a component that has been reported to be proba EPA classification. Possible human carcinogen IARC:2A-Group 2A: Probably carcinogenic to humans
Reproductive toxicity	Animal testing did not show any effects on foetal development.

May cause reproductive disorders. Suspected human reproductive toxicant

Specific target organ toxicity	Single exposure**:** no data available
Specific target organ toxicity	repeated exposure: Oral-Causes damage to organs through prolonged or repeated exposure.-Peripheral nervous system
Aspiration hazard	no data available
RTECS	RTECS: AS3325000

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

Toxicity to fish	LC50-Pimephales promelas (fathead minnow)-90 mg/l-96 h NOEC-Cyprinus carpio (Carp)-5 mg/l-28 d
Toxicity to daphnia and other aquatic invertebrates:	mortality NOEC-Daphnia magna (Water flea)-60 mg/l-48 h
Persistence/degradation	Biodegradability Result: 100 %-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	2074
Proper shipping name	ACRYLAMIDE, SOLID
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	Acetone EL Grade
Cat No.	EL0002
CAS-No.	67-64-1
M.W.	58.08
EC-No.	200-662-2

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	Acetic Acid Glacial EL Grade
Cat No.	EL0001
CAS-No.	64-19-7
M.W.	60.05
EC-No.	200-580-7

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Component(s)	-
CAS No.	64-19-7
Percent	>99.9%
Substance/Mixture	Substance
Synonym	Glacial Acetic Acid
Chemical Formula	CH_3COOH

SECTION 3: HAZARDS IDENTIFICATION

GHS CLASSIFICATION

Flammable liquids	(Category 3)
Skin corrosion	(Category 1A)

GHS LABEL ELEMENTS

Pictograms or Hazard Symbols

Signal word Danger

Hazard statement(s)

H226 Flammable liquid and vapour.
H314 Causes severe skin burns and eye damage.

Precautionary statement(s)

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.
P310 Immediately call a POISON CENTER or doctor/ physician.

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 Suitable extinguishing media:
For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.

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.

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 inhalation of vapour or mist. Keep away from sources of ignition - No smoking .Take measures to prevent the build up of electrostatic charge.
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	liquid
Odour	pungent
Odour Threshold	no data available
pH	2.4 at 60.05 g/l
Melting/freezing point	16.2°C - lit.
Boiling point/range	117 - 118 °C - lit.
Flash point	40.0 °C - closed cup
Evapouration rate	no data available
Vapour pressure	73.3 hPa at 50.0°C 15.2 hPa at 20.0°C
Vapour density	no data available
Relative density	1.048-1.051g
Water solubility	completely miscible
LogPow	-0.17
Auto-ignition temperature	485.0 °C
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	Oxidizing agents, Soluble carbonates and phosphates, Hydroxides, Metals, Peroxides, permanganates, e.g. potassium permanganate, Amines, Alcohols
Hazardous decomposition products	no data available
Conditions to avoid	Heat, flames and sparks.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute toxicity

LD50Oral - rat - 3.310 mg/kg

LC50Inhalation - mouse - 1 h - 5620 ppm

	Remarks: Sense Organs and Special Senses (Nose, Eye, Ear, and Taste):Eye:Conjunctive irritation. Sense Organs and Special Senses (Nose, Eye, Ear, and Taste):Eye: Other. Blood: Other changes. LD50Dermal - rabbit - 1.112 mg/kg
Skin corrosion/irritation	no data available
Serious eye damage/irritation	Eyes - rabbit - Corrosive to eyes
Respiratory/skin sensitization	May cause sensitization by skin contact.
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	RTECS: AF1225000

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

Toxicity to fish	LC50 - Pimephales promelas (fathead minnow) - 79 - 88 mg/l - 96 h LC50 - Lepomis macrochirus - 75 mg/l - 96 h
Toxicity to daphnia and other aquatic invertebrates	EC50 - Daphnia magna (Water flea) - 65 mg/l - 48 h
Persistence/degradation	
	Biodegradability: aerobic - Exposure time 30 d Result: 99 % - Readily biodegradable. Remarks: Expected to be 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	2789
Proper shipping name	Acetic Acid Glacial
Hazard class	8(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	Acrylamide for Electrophoresis 99.9%
Cat No.	030022
CAS-No.	79-06-1
M.W.	71.08
EC-No.	201-173-7

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Component(s)	-
CAS No.	79-06-1
Percent	> 99.9%
Substance/Mixture	Substance
Synonym	Ethylenecarboxamide; 2-Propenamide
Chemical Formula	C_3H_5NO

SECTION 3: HAZARDS IDENTIFICATION

GHS CLASSIFICATION

Carcinogenicity	(Category 1B)
Germ cell mutagenicity	(Category 1B)
Reproductive toxicity	(Category 2)
Acute toxicity, Oral	(Category 3)
Specific target organ toxicity -repeated exposure	(Category 1)
Acute toxicity, Inhalation	(Category 4)
Acute toxicity, Dermal	(Category 4)
Eye irritation	(Category 2)
Skin irritation	(Category 2)
Skin sensitization	(Category 1)

GHS LABEL ELEMENTS

Pictograms or Hazard Symbols

Signal word Danger

Hazard statement(s)

H301	Toxic if swallowed.
H312 + H332	Harmful in contact with skin or if inhaled
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H340	May cause genetic defects.
H350	May cause cancer.
H361f	Suspected of damaging fertility.
H372	Causes damage to organs through prolonged or repeated exposure.

Precautionary statement(s)

P201	Obtain special instructions before use.
P280	Wear protective gloves/ protective clothing.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor.
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 + P313	IF exposed or concerned: 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	Carbon oxides, Nitrogen oxides (NOx)
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	Colourless crystaline powder.
Odour	Odourless
Odour Threshold	no data available
pH	no data available
Melting/freezing point	82-86 °C
Boiling point/range	125 °C at 33.3 hPa
Flash point	138 °C
Evapouration rate	no data available
Vapour pressure	0.009 hPa at 25 °C
Vapour density	2.45
Relative density	no data available
Water solubility	soluble
LogPow	-0.9 (20 °C)
Auto-ignition temperature	no data available
Decomposition temperature	175 - 300 °C
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	Acids, Oxidizing agents, Iron and iron salts., Copper, Brass, Free radical initiators
Hazardous decomposition products	Carbon oxides, Nitrogen oxides (NOx)
Conditions to avoid	No data available

SECTION 11: TOXICOLOGICAL INFORMATION

Skin corrosion/irritation	Skin-Rabbit	Result: No skin irritation

Serious eye damage/irritation	Eyes-Rabbit Result: Irritating to eyes.
Respiratory/skin sensitization	Maximisation Test-Guinea pig May cause allergic skin reaction.
Germ cell mutagenicity	May alter genetic material. In vivo tests showed mutagenic effects
Carcinogenicity	This product is or contains a component that has been reported to be proba EPA classification. Possible human carcinogen IARC:2A-Group 2A: Probably carcinogenic to humans
Reproductive toxicity	Animal testing did not show any effects on foetal development.

May cause reproductive disorders. Suspected human reproductive toxicant

Specific target organ toxicity	Single exposure**:** no data available
Specific target organ toxicity	repeated exposure: Oral-Causes damage to organs through prolonged or repeated exposure.-Peripheral nervous system
Aspiration hazard	no data available
RTECS	RTECS: AS3325000

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

Toxicity to fish	LC50-Pimephales promelas (fathead minnow)-90 mg/l-96 h NOEC-Cyprinus carpio (Carp)-5 mg/l-28 d
Toxicity to daphnia and other aquatic invertebrates:	mortality NOEC-Daphnia magna (Water flea)-60 mg/l-48 h
Persistence/degradation	Biodegradability Result: 100 %-Readily biodegradable
Environmental	Harmful to aquatic life.

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose of contaminated packaging or unused product as per local law and regulations.
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SECTION 14: TRANSPORT INFORMATION

UN number	2074
Proper shipping name	ACRYLAMIDE, SOLID
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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