



OCI Company Ltd.

Material Safety Data Sheet

MSDS

Potassium Thiocyanate

Section 1 - Chemical Product and Company Identification

Product name : Potassium Thiocyanate

Recommended use : Laboratory chemicals, Testing, Research and Industrial use

Restriction of use : Not for use other than for non-drinking, testing, research and industrial purposes

Company Identification

Company : OCI Company Ltd.

Address : 94, Sogong-ro, Jung-gu, Seoul, KOREA

Tel No. : 82 - 2 - 727 - 9494

Section 2 - Hazards Identification

- 1) Hazard Classification
- Acute toxicity, oral : 4
 - Skin corrosion / irritation : 2
 - Serious eye damage / Eye irritation : 2
 - Reproductive toxicity : 2
 - Specific target organ toxicity following single exposure : 3 (Narcotic effects)
 - Specific target organ toxicity following exposure : 2

2) Warning signal

Symbol



Signal word

Warning

Hazard statement

- H302 Harmful if swallowed
- H315 Causes skin irritation
- H319 Causes serious eye irritation
- H336 May cause drowsiness or dizziness
- H361 Suspected of damaging fertility or the unborn child
- H373 May cause damage to organs through prolonged or repeated exposure

Prevention precautionary statements

- P201 Obtain special instructions before use.
- P202 Do not handle until all safety precautions have been read and understood.
- P260 Do not breathe dust/fume/gas/mist/vapours/spray.
- P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P281 Use personal protective equipment as required.
P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
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+P313 IF exposed or concerned: Get medical advice/attention.
P312 Call a POISON CENTER or doctor/physician if you feel unwell.
P314 Get medical advice/attention if you feel unwell.
P321 Specific treatment (see on this label).
P330 Rinse mouth.
P332+P313 If skin irritation occurs: Get medical advice/attention.
P337+P313 If eye irritation persists: Get medical advice/attention.
P362 Take off contaminated clothing and wash before reuse.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.
P501 Dispose of contents/container to the related laws.

3) NFPA	
Health Rating	2
Flammability Rating	0
Reactivity Rating	0

Section 3 - Composition, Information on Ingredients

Component: Potassium Thiocyanate
CAS No.: 333-20-0
Content: 100%

Section 4 - First Aid Measures

General information: Get medical advice/attention if you feel unwell. Show this safety data sheet to the doctor in attendance.

Ingestion: Rinse mouth thoroughly. Drink a few glasses of water or milk. Call a POISON CENTER or doctor/physician if you feel unwell.

Inhalation: Move to fresh air. Get medical attention if symptoms persist.

Skin contact: Wash skin thoroughly with soap and water. Get medical attention if irritation persists after washing. Wash contaminated clothing before reuse.

Eye contact: Flush thoroughly with water. If irritation occurs, get medical assistance.

Most important symptoms/effects, acute and delayed

Symptoms: Harmful if inhaled. Harmful if swallowed. Causes serious eye irritation.

Indication of immediate medical attention and special treatment needed

Treatment: Treat symptomatically. Symptoms may be delayed.

Section 5 - Fire Fighting Measures

General fire hazards: In case of fire and/or explosion do not breathe fumes.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media: None known.

Specific hazards arising from the chemical: During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters

Special fire fighting procedures: Move containers from fire area if you can do so without risk. Use water spray to keep fire-exposed containers cool. Cool containers exposed to flames with water until well after the fire is out.

Special protective equipment for fire-fighters: Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

Section 6 - Accidental Release Measures

Personal precautions, protective equipment and emergency procedures: Keep unauthorized personnel away. Use personal protective equipment. Ventilate closed spaces before entering them. See Section 8 of the MSDS for Personal Protective Equipment.

Methods and material for containment and cleaning up: Sweep up and place in a clearly labeled container for chemical waste. Clean surface thoroughly to remove residual contamination.

Notification Procedures: Prevent entry into waterways, sewer, basements or confined areas. Stop leak if you can do so without risk. Inform authorities if large amounts are involved.

Environmental precautions: Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

Section 7 - Handling and Storage

Precautions for safe handling: Use personal protective equipment as required. Avoid contact with eyes, skin, and clothing. Avoid inhalation of dust. Wash thoroughly after handling.

Conditions for safe storage, including any incompatibilities: Keep container tightly closed. Store in a cool and well-ventilated place. Store in a dry place. Store away from incompatible materials.

Section 8 - Exposure Controls, Personal Protection

Control parameters

Occupational exposure limits None of the components have assigned exposure limits.

Appropriate engineering controls No data available.

Individual protection measures, such as personal protective equipment

General information: Good general ventilation (typically 10 air changes per hour) should be used. Ventilation

rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. An eye wash and safety shower must be available in the immediate work area.

Eye/face protection: Wear safety glasses with side shields (or goggles) and a face shield.

Skin protection

Hand protection: Wear protective gloves.

Other: Wear suitable protective clothing.

Respiratory protection: In case of inadequate ventilation use suitable respirator.

Hygiene measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Provide eyewash station and safety shower.

Section 9 - Physical and Chemical Properties

Appearance

Physical state: Solid

Form: Hygroscopic Solid

Color: Colorless

Odor: Odorless

Odor threshold: No data available.

pH: No data available.

Melting point/freezing point: 173°C

Initial boiling point and boiling range: 500°C (decompose)

Flash Point: 500°C

Evaporation rate: No data available.

Flammability (solid, gas): No data available.

Upper/lower limit on flammability or explosive limits

Flammability limit - upper (%): No data available.

Flammability limit - lower (%): No data available.

Explosive limit - upper (%): No data available.

Explosive limit - lower (%): No data available.

Vapor pressure: No data available.

Vapor density: No data available.

Relative density: 1.886

Solubility(ies)

Solubility in water: High solubility in water

Solubility (other): No data available.

Partition coefficient (n-octanol/water): No data available.

Auto-ignition temperature: No data available.

Decomposition temperature: 500 °C

Viscosity: No data available.

Molecular weight: 97.18

Section 10 - Stability and Reactivity

Reactivity: No dangerous reaction known under conditions of normal use.

Chemical stability: Material is stable under normal conditions.

Possibility of hazardous reactions: Hazardous polymerization does not occur.

Conditions to avoid: Contact with incompatible materials. Light.

Incompatible materials: Strong oxidizing agents. Halogens and halogenated compounds.

Hazardous decomposition products: Thermal decomposition may produce oxides of nitrogen. Cyanides.

Section 11 - Toxicological Information

Information on likely routes of exposure

Ingestion: Harmful if swallowed. May cause irritation of the gastrointestinal tract.

Inhalation: Harmful if inhaled. May cause irritation to the respiratory system.

Skin contact: Harmful in contact with skin. May cause irritation.

Eye contact: Causes serious eye irritation. May irritate eyes.

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral Product: LD50 854 mg/kg Rat

Dermal Product: No data available.

Inhalation Product: No data available.

Repeated dose toxicity Product: No data available.

Skin corrosion/irritation Product: May cause skin irritation.

Serious eye damage/eye irritation Product: Causes serious eye irritation. May irritate eyes.

Respiratory or skin sensitization Product: Not a skin sensitizer.

Carcinogenicity Product: This substance has no evidence of carcinogenic properties.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

No carcinogenic components identified

US. National Toxicology Program (NTP) Report on Carcinogens:

No carcinogenic components identified

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):

No carcinogenic components identified

Germ cell mutagenicity

In vitro Product: No mutagenic components identified

In vivo Product: No mutagenic components identified

Reproductive toxicity Product: No data available.

Specific target organ toxicity - single exposure Product: No data available.

Specific target organ toxicity - repeated exposure Product: No data available.

Aspiration hazard Product: Not classified

Other effects: None known.

Section 12 - Ecological Information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish Product: No data available.

Specified substance(s):

POTASSIUM THIOCYANATE

LC 50 (Rainbow trout,donaldson trout (Oncorhynchus mykiss), 12 h): 410 - 508 mg/l Mortality

LC 50 (Rainbow trout,donaldson trout (Oncorhynchus mykiss), 12 h): 492 - 681 mg/l Mortality

LC 50 (Rainbow trout,donaldson trout (Oncorhynchus mykiss), 12 h): 504 - 706 mg/l Mortality

LC 50 (Rainbow trout,donaldson trout (Oncorhynchus mykiss), 18 h): 1,849 - 1,894 mg/l Mortality

LC 50 (Rainbow trout,donaldson trout (Oncorhynchus mykiss), 24 h): 955 - 1,386 mg/l Mortality

Aquatic invertebrates Product: No data available.

Specified substance(s):

POTASSIUM THIOCYANATE

LC 50 (Water flea (Daphnia magna), 96 h): 1.16 - 8.946 mg/l Mortality

LC 50 (Water flea (Daphnia magna), 96 h): 1.429 - 9.155 mg/l Mortality

LC 50 (Water flea (Daphnia magna), 96 h): 22.03 - 41.633 mg/l Mortality

LC 50 (Water flea (Daphnia magna), 96 h): 23.149 - 45.657 mg/l Mortality

LC 50 (Water flea (Daphnia magna), 96 h): 23.86 - 46.937 mg/l Mortality

Chronic hazards to the aquatic environment:

Fish Product: No data available.

Aquatic invertebrates Product: No data available.

Toxicity to Aquatic Plants Product: No data available.

Persistence and degradability

Biodegradation Product:There are no data on the degradability of this product.

BOD/COD ratio Product: No data available.

Bioaccumulative potential

Bioconcentration factor (BCF) Product: BCF 13.8 (Pimephales promelas , exposure time:124days, exposure density : 32600ug/L)

Partition coefficient n-octanol / water (log Kow) Product: No data available.

Mobility in soil: No data available.

Other adverse effects: Harmful to aquatic life with long lasting effects. There are no data on the ecotoxicity of this product.

Section 13 - Disposal Considerations

Disposal instructions: Discharge, treatment, or disposal may be subject to national, state, or local laws.

Discharge, treatment, or disposal may be subject to national, state, or local laws.

Contaminated packaging: Since emptied containers retain product residue, follow label warnings even after container is emptied. Since emptied containers retain product residue, follow label warnings even after container is emptied.

Section 14 - Transport Information

UN Number: Not regulated

Shipping Name: Not applicable
Hazard Class: Not applicable
Packing Group: Not applicable
Marine Pollutant: : No data available
Safety measures : Not applicable

Section 15 - Regulatory Information

US federal regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4):

None present or none present in regulated quantities.

Superfund amendments and reauthorization act of 1986 (SARA)

Hazard categories

XAcute (Immediate) Chronic (Delayed) Fire Reactive Pressure Generating

SARA 302 Extremely hazardous substance

None present or none present in regulated quantities.

SARA 304 Emergency release notification

None present or none present in regulated quantities.

SARA 311/312 Hazardous chemical

Chemical identity

Threshold Planning Quantity

POTASSIUM THIOCYANATE

500 lbs

SARA 313 (TRI reporting)

None present or none present in regulated quantities.

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

None present or none present in regulated quantities.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):

None present or none present in regulated quantities.

US state regulations

US. California Proposition 65

No ingredient regulated by CA Prop 65 present.

US. New Jersey Worker and Community Right-to-Know Act

No ingredient regulated by NJ Right-to-Know Law present.

US. Massachusetts RTK - Substance List

No ingredient regulated by MA Right-to-Know Law present.

US. Pennsylvania RTK - Hazardous Substances

No ingredient regulated by PA Right-to-Know Law present.

US. Rhode Island RTK

No ingredient regulated by RI Right-to-Know Law present.

Inventory Status:

Australia AICS:	On or in compliance with the inventory
Canada DSL Inventory List:	On or in compliance with the inventory
EINECS, ELINCS or NLP:	On or in compliance with the inventory

Japan (ENCS) List:	On or in compliance with the inventory
China Inv. Existing Chemical Substances:	On or in compliance with the inventory
Korea Existing Chemicals Inv. (KECI):	On or in compliance with the inventory
Canada NDSL Inventory:	Not in compliance with the inventory.
Philippines PICCS:	On or in compliance with the inventory
US TSCA Inventory:	On or in compliance with the inventory
New Zealand Inventory of Chemicals:	On or in compliance with the inventory
Japan ISHL Listing:	On or in compliance with the inventory
Japan Pharmacopoeia Listing:	Not in compliance with the inventory.

Section 16 - Other Information

Sources : KOSHA, National Emergency Management Agency

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