

Potassium Ethyl Xanthate:

MATERIAL SAFETY DATA SHEET



SINORAN MINING&METALLURGY EQUIPMENT CO., LTD

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Company Name: **SINORAN MINING&METALLURGY EQUIPMENT CO.,LTD.**

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Date of issue: 2020 Jan 7.

PRODUCT IDENTIFICATION:

Product Name: Potassium Ethyl Xanthate, Solid.

Date of Revision: 2015 Sep 17

Chemical Name: Potassium Ethyl Xanthate.

Synonyms: Potassium Xanthogenate; Potassium Ethyl Dithiocarbonate.

Chemical Family: Salts of carbonic acid dithio esters.

Molecular Formula: $C_3H_5OS_2K$

Product Use: Flotation agent.

2. HAZARDS IDENTIFICATION

CLASSIFICATION

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard(29 CFR 1910.1200)

Acute oral toxicity	Category 4
Skin Corrosion/Irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 2
Specific Target Organ Toxicity(single exposure)	Category 3
Target Organs	Respiratory System

LABEL ELEMENTS

Single Word

Warning

Hazard Statements

Harmful if swallowed

Causes skin irritation

Causes serious eye irritation

May cause respiratory irritation



Precautionary Statements

Prevention

Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Wear protective gloves/protective clothing/eye protection/face protection
Avoid breathing dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area

Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Call a POISON CENTER or doctor/physician if you feel unwell

Skin

IF ON SKIN: Wash with plenty of soap and water
If skin irritation occurs: Get medical advice/attention
Take off contaminated clothing and wash before reuse

Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing
If eye irritation persists: Get medical advice/attention

Ingestion

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
Rinse mouth

Storage

Store in a well-ventilated place. Keep container tightly closed
Store locked up

Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

None identified

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No.	Weight %
Carbonodithioic acid, O-ethyl ester, potassium salt	140-89-6	≥95

4. FIRST-AID MEASURES

Eye Contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

Skin Contact

Wash off immediately with soap and plenty of water while

Inhalation	removing all contaminated clothes and shoes. Get medical attention. Remove from exposure, lie down. Remove to fresh air. If not breathing, give artificial respiration. Get medical attention.
Ingestion	Clean mouth with water. Get medical attention.
Most important symptoms and effects	No information available.
Notes to Physician	Treat symptomatically

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media	Water spray. Carbon dioxide (CO ₂). Dry chemical. Chemical foam.
Unsuitable Extinguishing Media	No information available
Flash Point	No information available
Method	No information available
Autoignition Temperature	
Explosion Limits	
Upper	No data available
Lower	No data available
Sensitivity to Mechanical Impact	No information available
Sensitivity to Static Discharge	No information available

Specific Hazards Arising from the Chemical

Keep product and empty container away from heat and sources of ignition.

Hazardous Combustion Products

Carbon monoxide (CO). Carbon dioxide (CO₂). Sulfur oxides.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA

<i>Health</i>	<i>Flammability</i>	<i>Instability</i>	<i>Physical hazards</i>
2	1	0	N/A

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Ensure adequate ventilation. Use personal protective equipment as required.
Environmental Precautions	See Section 12 for additional Ecological Information.
Methods for Containment and Clean Up	Sweep up and shovel into suitable containers for disposal. Do not let this chemical enter the environment.

7. HANDLING AND STORAGE

Handling	Avoid contact with skin and eyes. Do not breathe dust. Do
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not ingest. If swallowed then seek immediate medical assistance.

Storage

Keep in a dry, cool and well-ventilated place. Refer product specification and/or product label for specific storage temperature requirement. Keep container tightly closed.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

Exposure Guidelines

This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Engineering Measures

Ensure adequate ventilation, especially in confined areas. Ensure that eye wash stations and safety showers are close to the workstation location.

Personal Protective Equipment

Eye/face Protection

This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Skin and body protection

Ensure adequate ventilation, especially in confined areas. Ensure that eye wash stations and safety showers are close to the workstation location.

Respiratory Protection

No protective equipment is needed under normal use conditions

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice

9. PHYSICAL AND CHEMICAL PROPERTIES(Not Intended As Specifications)

Physical State	Powder Solid
Appearance	Yellow
Odor	No information available
Odor threshold	No information available
pH	209 - 214 °C / 408.2 - 417.2 °F
Melting Point/Range	No information available
Boiling Point/Range	No information available
Flash Point	No information available
Evaporation Rate	Not applicable
Flammability(solid, gas)	No information available
Flammability or explosive limits	
Upper	No data available
Lower	No data available
Vapor Pressure	No information available
Vapor Density	Not applicable
Specific Gravity	No information available
Solubility	No information available

Partition coefficient, n-octano/water	No data available
Auto-ignition Temperature	
Decomposition Temperature	No information available
Viscosity	Not applicable
Molecular Formula	C ₃ H ₅ OS ₂ K
Molecular Weight	160.3

10. STABILITY AND REACTIVITY

Reactive Hazard	None known, based on information available
Stability	Stable under normal conditions
Conditions to Avoid	Exposure to light, incompatible products
Incompatible Materials	Strong oxidizing agents, strong acids, strong bases,
Hazardous Decomposition Products	Carbon monoxide(CO), Carbon dioxide(CO ₂), Sulfur oxides
Hazardous Polymerization	Hazardous polymerization does not occur.
Hazardous Reactions	None under normal processing.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Product Information

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Carbonodithioic acid, O-ethyl ester, potassium salt	LD50=1700mg/kg(Rat)	Not listed	Not listed

Toxicologically Synergistic Products No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation No information available

Sensitization No information available

Carcinogenicity The table below indicates whether each agency has listed ingredient as a carcinogen

Component	CAS-No	IARC	NTP	ACGIH	OSHA	MEXICO
Carbonodithioic acid, O-ethyl ester, potassium salt	140-89-6	Not listed	Not listed	Not listed	Not listed	Not listed

Mutagenic Effects None known, based on information available

Reproductive Effects Stable under normal conditions

Development Effects Exposure to light, incompatible products

Teratogenicity Strong oxidizing agents, strong acids, strong bases,

STOT-single exposure Respiratory system

STOT-repeated exposure None known

Aspiration hazard No information available

Symptoms/effects, both acute and delayed No information available

Endocrine Disruptor Information

No information available

Other Adverse Effects

The toxicological properties have not been fully investigated.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Do not empty into drains

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Carbonodithioic acid, O-ethyl ester, potassium salt	Not listed	LC50:15-25mg/L, 96h static(Oncorhynchus mykiss)	Not listed	Not listed

Persistence and Degradability

Soluble in water Persistence is unlikely based on information available.

Stability

No information available.

Conditions to Avoid

Will likely be mobile in the environment due to its water solubility.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification

14. TRANSPORTATION INFORMATION

DOT	Not regulated
TDG	Not regulated
IATA	Not regulated
IMDG/IMO	Not regulated

15. REGULATORY INFORMATION

USA

Component	CAS-NO	TSCA	TSCA Inventory notification-Active/Inactive	TSCA-EPA Regulatory Flags
Carbonodithioic acid, O-ethyl ester, potassium salt	140-89-6	X	ACTIVE	-

Legend

TSCA-Toxic Substances Control Act(40 CFR Part 710)

X-Listed

' _ ' Not listed

TSCA 12(b)-Notices of Export

Not applicable

INTERNATIONAL

Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Australia (AICS), China (IECSC), Korea (ECL).

Component	CAS-NO	DSL	NDSL	EINECS	PICCS	ENCS	AICS	IECSC	KECL
Carbonodithioic acid, O-ethyl ester, potassium salt	140-89-6	X	-	205-439-3	X	X	X	X	KE-047 48

US Federal Regulations

SARA 313

Not applicable

SARA 311/312 Hazard Categories

See section 2 for more information

CWA(Clean Water Act)

Not applicable

Clean Air Act

Not applicable

OSHA- Occupational Safety and Health Administration

Not applicable

California Proposition 65

This product does not contain any Proposition 65 chemicals

U.S. State Right-to-know Regulations

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Carbonodithioic acid, O-ethyl ester, potassium salt	X	-	X	-	-

U.S. Department of Transportation

Reportable quantity(RQ):

N

DOT Marine Pollutant

N

DOT Severe Marine Pollutant

N

U.S. Department of Homeland Security

This product does not contain any DHS chemicals.

16. OTHER INFORMATION

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Revision Date

2020 Jan 7

Print Date

2020 Jan 7

Revision Summary

SDS authoring systems update, replaces ChemGes SDS No. 140-89-6/2

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information

relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

END OF SDS