SAFETY DATA SHEET

Preparation Date: 06/03/2015 **Revision Date:** 06/03/2015 **Revision Number:** G1

Product identifier

Product code: P1420
Product Name: POTASSIUM THIOCYANATE, CRYSTAL, REAGENT, ACS

Other means of identification

Synonyms:
Arterocyn
Aterocyn
Kyonate
Potassium isothiocyanate
Potassium rhodanate
Potassium sulfocyanate
Potassium thiocyanide
Rhocya
Rodanca
Thio-cara
Thiocyanic acid, potassium salt
[ChemIDplus] Potassium rhodanide

CAS #: 333-20-0
RTECS # XL1925000
CI#: Not available

Recommended use of the chemical and restrictions on use

Recommended use: No information available.
Uses advised against No information available

Supplier:
Spectrum Chemical Mfg. Corp
14422 South San Pedro St.
Gardena, CA 90248
(310) 516-8000

Order Online At: https://www.spectrumchemical.com

Emergency telephone number Chemtrec 1-800-424-9300
Contact Person: Martin LaBenz (West Coast)
Contact Person: Ibad Tirmiz (East Coast)

2. HAZARDS IDENTIFICATION

Classification

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

Acute toxicity - Oral	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A

Label elements

Warning

Hazard statements
Harmful if swallowed
Causes skin irritation
Causes serious eye irritation

Hazards not otherwise classified (HNOC)
Not Applicable

Other hazards
Not available

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
Wear eye/face protection

Precautionary Statements - Response
Specific treatment (see .? on this label)
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.
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
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
Rinse mouth

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight %	Trade Secret
Potassium Thiocyanate 333-20-0	333-20-0	100	*

4. FIRST AID MEASURES

First aid measures

General Advice: Poison information centers in each State capital city can provide additional assistance for scheduled poisons (13 1126).

4. FIRST AID MEASURES

Skin Contact: Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Get medical attention. If skin irritation persists, call a physician.

Eye Contact: Flush eye with water for 15 minutes. Get medical attention.

Inhalation: Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion: Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Obtain medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms Harmful if swallowed. Causes serious eye irritation. Causes skin irritation.

Indication of any immediate medical attention and special treatment needed

Notes to Physician: Treat symptomatically

Protection of first-aiders

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste

5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: The product is not flammable. If it is involved in a fire, extinguish the fire using an agent suitable for the type of surrounding fire.

Unsuitable Extinguishing Media: No information available.

Specific hazards arising from the chemical

Hazardous Combustion Products: If involved in a fire the following can be released: Carbon oxides; Nitrogen oxides; Sulphur oxides; Potassium oxides; Hydrogen cyanide gas

Specific hazards: Nonflammable
When heated to decomposition it emits toxic gases and irritating fumes
Contact with strong oxidizers may cause fire
Contact with oxidizers may cause explosion

Special Protective Actions for Firefighters

Specific Methods: No information available.

Special Protective Equipment for Firefighters: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions: Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid dust formation. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

Environmental precautions Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Prevent entry into waterways, sewers, basements or confined areas.

Methods and material for containment and cleaning up

Methods for containment Stop leak if you can do it without risk. Cover with plastic sheet to prevent spreading.

Methods for cleaning up Use appropriate tools to put the spilled solid in a suitable waste disposal container. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Technical Measures/Precautions:
Provide sufficient air exchange and/or exhaust in work rooms. Avoid dust formation. Keep away from incompatible materials.

Safe Handling Advice
Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Protect from moisture. Avoid dust formation. Do not breathe vapours/dust. Do not ingest. Do not smoke. Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Technical Measures/Storage Conditions:
Deliquescent. Protect from moisture. Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Store away from incompatible materials.

Incompatible Materials:
Alkalis. Halogenated compounds. Acids. Mineral acids. Hydrochloric acid. Hydrofluoric acid. Muriatic acid. Phosphoric acid. Chromic acid. Hypochlorous acid. Nitric acid. Sulfuric acid. Organic acids. Acetic acid. Benzoic acid. Formic acid. Methanoic acid. Oxalic acid. Oxidizing agents. chlorates. nitrates. nitrites.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

National occupational exposure limits

United States

Components	OSHA	NIOSH	ACGIH	AIHA WHEEL
Potassium Thiocyanate 333-20-0	5 mg/m³TWA	None	None	None

Canada

Components	Alberta	British Columbia	Ontario	Quebec
Potassium Thiocyanate 333-20-0	None	None	None	10 ppm Ceiling (as CN) 11 mg/m³Ceiling (as CN)

Australia and Mexico

Components	Australia	Mexico
Potassium Thiocyanate 333-20-0	None	e mg/m^{3}TWA (as CN)

Appropriate engineering controls

Engineering measures to reduce exposure: Ensure adequate ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Individual protection measures, such as personal protective equipment

Personal Protective Equipment

Eye protection: Safety glasses with side-shields or Goggles

Skin and body protection: Long sleeved clothing. Chemical resistant apron. Gloves.

Respiratory protection: Wear respirator with dust filter.

Hygiene measures: Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

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Physical state:
Solid.

Appearance:
Crystals.

Color:
White.

Odor:
Odorless.

Taste
No information available

Molecular/Formula weight:
97.18

Formula:
KSCN

Flammability:
No information available

Flash point (°C):
No data available

Flashpoint (°C/°F):
No information available.

Flash Point Tested according to:
Not available

Lower Explosion Limit (%):
No information available

Upper Explosion Limit (%):
No information available

Autoignition Temperature (°C/°F):
No information available

pH:
5.3-8.5

Melting point/range(°C/°F):
173°C/ 343.4°F

Boiling point/range(°C/°F):
500°C/ 932°F

Decomposition temperature(°C/°F):
No information available

Bulk density:
750-1000 kg/m^3

Specific gravity:
1.89

Vapor pressure @ 20°C (kPa):
No information available

Density (g/cm3):
No information available

Evaporation rate:
No information available

Vapor density:
No information available

VOC content (g/L):
No information available

Odor threshold (ppm):
No information available

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

Viscosity:
No information available

Miscibility:
No information available

Solubility:
Easily soluble in cold water
Soluble in Acetone
Soluble in Alcohol
1 g dissolves in 0.5 ml acetone
1 g dissolves in 12 ml of acetone
1 g dissolves in 8 ml of boiling alcohol
217 g dissolves in 100 ml water at 20 deg. C

10. STABILITY AND REACTIVITY

Reactivity

Incompatible with active halogen compounds.
Incompatible with acids (mineral, non-oxidizing, e.g. hydrochloric acid, hydrofluoric acid, muriatic acid, phosphoric acid), acids (mineral, oxidizing, e.g. chromic acid, hypochlorous acid, nitric acid, sulfuric acid), acids (organic, e.g. acetic acid, benzoic acid, formic acid, methanoic acid, oxalic acid), oxidizers (chlorates, peroixdes, nitrates, nitrites). Contact with acids liberates toxic cyanide gas or hydrogen sulfide

Chemical stability

Stability: Deliquescent. Stable under recommended storage conditions.

Possibility of Hazardous Reactions: Hazardous polymerization does not occur

Conditions to avoid: Avoid dust formation. Exposure to moist air. Exposure to moisture. Incompatible materials.

Incompatible Materials: Alkalis. Halogenated compounds. Acids. Mineral acids. Hydrochloric acid. Hydrofluoric acid. Muriatic acid. Phosphoric acid. Chromic acid. Hypochlorous acid. Nitric acid. Sulfuric acid. Organic acids. Acetic acid. Benzoic acid. Formic acid. Methanoic acid. Oxalic acid. Oxidizing agents. chlorates. nitrates. nitrites.

Hazardous decomposition products: Carbon oxides. Nitrogen oxides (NOx). Oxides of potassium. Sulphur oxides. Hydrogen cyanide (hydrocyanic acid).

Other Information

Corrosivity: No information available

Special Remarks on Corrosivity: No information available

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Principal Routes of Exposure:
Skin. Inhalation. Ingestion.

Acute Toxicity

Component Information

Potassium Thiocyanate - 333-20-0

LD50/oral/rat = 854 mg/kg Oral LD50 Rat
LD50/oral/mouse = 590 mg/kg
LD50/dermal/rat = No information available
LD50/dermal/rabbit = No information available
LC50/inhalation/rat = No information available
LC50/inhalation/mouse = No infomation available
Other LD50 or LC50information = No information available

Product Information

LD50/oral/rat =
VALUE- Acute Tox Oral = 854mg/kg

LD50/oral/mouse =
Value - Acute Tox Oral = 590mg/kg

LD50/dermal/rabbit
VALUE-Acute Tox Dermal = No information available

LD50/dermal/rat
VALUE -Acute Tox Dermal = No information available

LC50/inhalation/rat
VALUE-Vapor = No information available
VALUE-Gas = No information available
VALUE-Dust/Mist = No information available

LC50/Inhalation/mouse
VALUE-Vapor = No information available
VALUE - Gas = No information available
VALUE - Dust/Mist = No information available

Symptoms

Skin Contact: Causes skin irritation. May cause ulcers, discoloration, eczema. It can be absorbed through the skin.

Eye Contact: Causes serious eye irritation. Causes eye swelling of the eye lids. May cause blurred vision.

Inhalation May cause irritation of the respiratory tract and mucous membranes irritation. Symptoms may include coughing, chest pain, difficulty breathing.

Ingestion May be harmful if swallowed. May cause gastrointestinal tract irritation with nausea, ulceration or bleeding from stomach, and vomiting.. It may also affect behavior/central nervous system (hallucinations, delirium, confusion, distorted perceptions, disorientation, toxic psychosis, convulsions, muscle weakness), respiration (dyspnea), cardiovascular system (hypotension, cardiovascular collapse). Ingestion may also cause skin erruptions.

Aspiration hazard No information available

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

Chronic Toxicity Ingestion: Prolonged or repeated ingestion may affect metabolism, thyroid (goiter, hypothyroidism), blood, and urinary system in addition to behavior/central nervous system.
Skin: Repeated or prolonged skin contact can cause dermatitis..

Sensitization: No information available

Mutagenic Effects: No information available

Carcinogenic effects: Not considered carcinogenic

Components	IARC	ACGIH - Carcinogens	NTP	OSHA HCS - Carcinogens	Australia - Prohibited Carcinogenic Substances	Australia - Notifiable Carcinogenic Substances
Potassium Thiocyanate	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

Reproductive toxicity No data is available

Reproductive Effects: No information available
Developmental Effects: No information available
Teratogenic Effects: May cause birth defects (teratogenic effects) based on animal test data

Specific Target Organ Toxicity

STOT - single exposure No information available
STOT - repeated exposure No information available
Target Organs: Blood. Cardiovascular system. Thyroid. Nervous system.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects: No data available.

Persistence and degradability: No information available

Bioaccumulative potential: No information available

Mobility: No information available

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Waste from residues / unused products:
Waste must be disposed of in accordance with Federal, State and Local regulation.

Contaminated packaging:
Empty containers should be taken for local recycling, recovery or waste disposal

Components	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Potassium Thiocyanate	None	None	None	None

14. TRANSPORT INFORMATION

DOT

UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: None
ERG No: No information available
Marine Pollutant No data available
DOT RQ (lbs): No information available

TDG (Canada)

UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: No information available
Description: No information available

ADR

UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Packing Group: No information available
Subsidiary Risk: No information available
Classification Code: No information available
Description: No information available
CEFIC Tremcard No: No information available

IMO / IMDG

UN-No: Not Regulated

14. TRANSPORT INFORMATION

Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: No information available
Description: No information available
IMDG Page: No information available
Marine Pollutant No information available
MFAG: No information available
Maximum Quantity: No information available

RID

UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: No information available
Classification Code: No information available
Description: No information available

ICAO

UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: No information available
Description: No information available

IATA

UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: No information available
Description: No information available

15. REGULATORY INFORMATION

International Inventories

Components	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	CHINA	Australia (AICS)	EINECS-No.
Potassium Thiocyanate	Present	Present KE-29216	Present	Present (1)-152	Present	Present	Present 206-370-1

U.S. Regulations

Potassium Thiocyanate

New Jersey (EHS) List: SN 2308 500 lb. TPQ
New Jersey - Discharge Prevention - List of Hazardous Substances: Present (cyanide compounds)
Pennsylvania RTK: Present (cyanide compounds)
Pennsylvania RTK - Environmental Hazard List Present (cyanide compounds)
New York Release Reporting - List of Hazardous Substances:
10 lb. RQ
Louisana Reportable Quantity List for Pollutants: 10 lg./4.54 kg final RQ

California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.

Chemicals Known to the State of California to Cause Cancer:
This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Chemicals Known to the State of California to Cause Reproductive Toxicity:
This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Components	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:
Potassium Thiocyanate	Not Listed	Not Listed	Not Listed	Not Listed

CERCLA/SARA

Components	CERCLA - Hazardous Substances and their Reportable Quantities	Section 302 Extremely Hazardous Substances and TPQs	Section 302 Extremely Hazardous Substances and RQs	Section 313 - Chemical Category	Section 313 - Reporting *de minimis*
Potassium Thiocyanate	None	None	None	Cyanide compounds	1% de minimis concentration

U.S. TSCA

Components	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
Potassium Thiocyanate	Not Applicable	Not Applicable

Canada

WHMIS hazard class:
Non-controlled

Potassium Thiocyanate
Uncontrolled product according to WHMIS classification criteria

Canada Controlled Products Regulation:
This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the MSDS contains all of the information required by the CPR.

Inventory

Components	Canada (DSL)	Canada (NDSL)
Potassium Thiocyanate	Present	Not Listed

Components	CEPA Schedule I - Toxic Substances	CEPA - 2010 Greenhouse Gases Subject to Manditory Reporting
Potassium Thiocyanate	Not listed	Not listed

EU Classification

R-phrase(s)
R32 - Contact with acids liberates very toxic gas.
R20/21/22 - Harmful by inhalation, in contact with skin and if swallowed.
R52/53 - Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S -phrase(s)
S13 - Keep away from food, drink and animal feedingstuffs.
S46 - If swallowed, seek medical advice immediately and show this container or label.
S61 - Avoid release to the environment. Refer to special instructions/safety data sheets.
S36/37 - Wear suitable protective clothing and gloves.

Components	Classification	Concentration Limits:	Safety Phrases
Potassium Thiocyanate		No information	

The product is classified in accordance with Annex VI to Directive 67/548/EEC

Indication of danger:
Xn - Harmful.
N - Dangerous for the environment.

Xn

N

16. OTHER INFORMATION

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Preparation Date: 06/03/2015
Revision Date: 06/03/2015
Prepared by: Sonia Owen

Disclaimer: All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

End of Safety Data Sheet