Material Safety Data Sheet

Potassium Ferricyanide (RXSOL-60-6126-025)

1. Product and Company Identifaction

Product Name	Potassium Ferricyanide
Part Number	RXSOL-60-6126-025

Company Details:

RX MARINE INTERNATIONAL
105, A wing , BSEL , TECH PARK.
VASHI ,NEW BOMBAY 400703 INDIA

Branch : Kandla, Mumbai , Chennai, Vizag, Kolkata, UAE , OMAN , CANADA and KENYA

Phone	+91 22 20871200 - 1400
Fax	+91 22 27612100 :::AOH :0091 9821214367
Email	mail@rxmarine.com
Website	www.rxmarine.com

2. Composition / informationon ingredients

Chemical Name	CAS	EC .NO	Weight	Formula
Potassium hexacyanoferrate	13746-66-2	237-323-3	329,25 g/mol	K3Fe(CN)6

3. Hazards Identification

Signal Word	Warning
Hazard Statements	H319 Causes serious eye irritation. H411 Toxic to aquatic life with long lasting effects.
Precautionary statements - response	P264 Wash skin thoroughly after handling. P273 Avoid release to the environment. P280 Wear 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 Continuerinsing. P337 + P313 If eye irritation persists: Get medical advice/ attention. P391 Collect spillage.
Response	NA
Disposal	NA
Storage	NA
Prevention	NA
Supplemental Hazard Statements	EUH032 Contact with acids liberates very toxic gas.
Other hazards	This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher

4. First Aid Measures

General advice	Show this material safety data sheet to the doctor in attendance.
If inhaled	After inhalation: fresh air.
Eye Contact	After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

Swallowed	After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.
Skin Contact	In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.
Inhalation	NA
Ingestion	NA
Notes to Physician	NA
If swallowed	After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.
Most important symptoms and effects, both acute and delaye	The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11
Indication of any immediate medical attention and special treatment needed	No data available

5. Fire-fighting Measures

Extinguishing media	NA
Flammability	NA
Flash Point	NA
Suitable extinguishing media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment
Unsuitable extinguishing media	For this substance/mixture no limitations of extinguishing agents are given.
Specific hazards arising from the chemical	NA
Special hazards arising from the substance or mixture	Carbon oxides,Nitrogen oxides (NOx),Potassium oxides,Iron oxides,Not combustible.Ambient fire may liberate hazardous vapours
Further information	Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fireextinguishing water from contaminating surface water or the ground water system.
Hazardous combustion products	NA
Advice for firefighters	In the event of fire, wear self-contained breathing apparatus
Protective Equipment	NA
Hazardous thermal decomposition products	NA
Special protective actions for fire-fighters	NA

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures,For non-emergency personnel	Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.
For emergency responders	NA
Spillage	NA
Personal Protection	NA
Enviromental Precaution	Do not let product enter drains.
Methods and materials for containment and cleaning	Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.
Reference to other sections	For disposal see section 13.

7. Handling and Storage

Advice on safe handling	NA.
Advice on protection against fire and explosion	NA
Hygiene measures	NA
Precautions fo safe handling	For precautions see section 2.2.
Protective measures	NA
Conditions for safe storage, including any incompatibilities	NA
Storage conditions	Tightly closed. Dry.Do not store near acids.
Storage class	Storage class (TRGS 510): 13: Non Combustible Solids
Specific end use(s)	Apart from the uses mentioned in section 1.2 no other specific uses are stipulated
Handling	NA
Advice on general occupational hygiene	NA

8. Exposure controls and personal protection

Ingredient name	NA
Exposure limits	NA
Biological limit values	NA
Exposure controls	NA
Engineering Control	NA
Eye/face protection	Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses
Body Protection	protective clothing
Skin protection	This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).Full contactMaterial: Nitrile rubberMinimum layer thickness: 0,11 mm Break through time: 480 minMaterial tested:KCL 741 Dermatril® L This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell,Internet: www.kcl.de).Splash contactMaterial: Nitrile rubberMinimum layer thickness: 0,11 mm Break through time: 480 minMaterial tested:KCL 741 Dermatril® L
Respiratory protection	required when dusts are generated. Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.Recommended Filter type: Filter type P2 The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.
Hygiene measures	NA
Control of environmental exposure	Do not let product enter drains
Thermal hazards	NA

9. Physical and chemical properties

Physical state	Powder
Colour	Red.
Odour	No data available
Odor Threshold	Not Applicable
pH	Not Applicable
Melting Point	Regulation (EC) No. 440/2008, Annex, A.1Decomposes before
Boiling Point	Regulation (EC) No. 440/2008, Annex, A.2Decomposes below the boiling point.
Flash Point	Not applicable

Evaporation Rate	Not Applicable
Flammability (solid, gas)	The product is not flammable.
Explosive limits	No Data Available
Upper/lower flammability or explosive limits	No data available
Autoignition temperature	Not auto-flammable
Decomposition temperature	No data available
PH	6,0 - 9 at 329 g/l at 25 °C
Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: No data available
Water solubility	363 g/l - Regulation (EC) No. 440/2008, Annex, A.6
Relative density	1,893 at 20 °C - Regulation (EC) No. 440/2008, Annex, A.3
Vapour pressure	0.067 kPa (0.5 mm Hg) [room temperature]
Density	1,822 g/cm3
Vapour Density	No Data Available
Specific Gravity	no data available
Partition coefficient	Not applicable for inorganic substances
Explosive properties	None
Solubility	Insoluble in the following materials: cold water
Ignition temperature	No information available.
Particle characteristics	No data available
Viscosity	Kinematic (40°C (104°F)): 1 to 3 cm2 /s (100 to 300 cSt)
Oxidizing properties	None
Other safety information	No data available

10. Stability and reactivity

Reactivity	Contact with acids liberates very toxic gas.
Stability	NA
Possibility of hazardous reactions	A risk of explosion and/or of toxic gas formation exists with the following substances chromium(VI) oxideacids Ammonia hydrochloric acid nitrites Violent reactions possible with: Oxidizing agents Fluorine Hydrogen halides nitratesGenerates dangerous gases or fumes in contact with:Acids.
Conditions to avoid	Exposure to light. Exposure to moisture. no information available
Incompatible materials	Strong oxidizing agents
Hazardous Polymerization	NA
Hazardous decomposition products	In the event of fire: see section 5

11. Toxicological information

Acute toxicity	No data available LD50 Oral - Rat - > 5.110 mg/kg (OECD Test Guideline 401) Inhalation: No data available LD50 Dermal - Rat - male and female - > 2.000 mg/kg(OECD Test Guideline 402)
Skin corrosion/irritation	Skin - Human Result: No skin irritation (OECD Test Guideline 439)
Serious eye damage/eye irritation	Eyes - Rabbit,Result: Eye irritation,(OECD Test Guideline 405)
Respiratory or skin sensitization	Local lymph node assay (LLNA) - Mouse,Result: negative,(OECD Test Guideline429)
Rout Of Entry	NA
Toxicity to Animal	NA
Toxic Effects on Human	NA
Germ cell mutagenicity	Test Type: Ames test Test system: Salmonella typhimurium Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative
Carcinogenicity	No evidence of carcinogenicity in animal studies. Based on data from similar materials

Reproductive toxicity	No toxicity to reproduction Based on data from similar materials
Specific target organ toxicity - single exposure	No data available
Specific target organ toxicity - repeated exposure	No data available
Special Remarks on other Toxi Effects on Humans:	NA
Aspiration hazard	No data available
Additional Information	Endocrine disrupting properties
Assessment	Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.Repeated dose toxicity - female - Oral - NOAEL (No observed adverse effect level) - >=630 mg/kg Repeated dose toxicity - male - Oral - NOAEL (No observed adverse effect level) ->= 450mg/kg RTECS: LJ8225000 To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
Endocrine disrupting properties	NA

12. Ecological information

Persistence and degradability	NA
Bioaccumulative potential	No data available
Toxicity to fish	static test LC50 - Cyprinus carpio (Carp) - > 100 mg/l - 96 h (OECD Test Guideline 203)
Toxicity to daphnia and other aquatic invertebrates	static test EC50 - Daphnia magna (Water flea) - 59 mg/l - 48 h (OECD Test Guideline 202)
Toxicity to algae	static test ErC50 - Pseudokirchneriella subcapitata - 3,1 mg/l - 72 h (OECD Test Guideline 201)
Eco Toxicity	NA
COD and BOD 5	NA
Products Biodegradation:	NA
Mobility in soilNo data available	No data available
Results of PBT and vPvB assessment	This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
Endocrine disrupting properties	NA
Assessment	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.
Other adverse effects	No data available

13. Disposal considerations

Disposal methods	NA
Contaminated packaging	NA
Waste treatment Method	No data available

14. Transport information

UN number	ADR/RID: 3077 IMDG: 3077 IATA: 3077
UN proper shipping name	ADR/RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (tripotassium hexacyanoferrate(III)) (tripotassium hexacyanoferrate(III)) IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (tripotassium hexacyanoferrate(III)) (tripotassium hexacyanoferrate(III))

Transport hazard class(es)	ADR/RID: 9 IMDG: 9 IATA: 9
Packaging group	ADR/RID: III IMDG: III IATA: III
Environmental hazards	ADR/RID: yes IMDG Marine pollutant: yes IATA: yes
Special precautions for user	Tunnel restriction code : (-) Further information : No data available
Further information	NA
Transport in bulk according to IMOinstruments	NA

15. Regulatory information

U.S. Federal regulations	NA
Safety, health and environmental regulations/legislation specific for the substance or mixture	This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006
National legislation	Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. ENVIRONMENTAL HAZARDS
DSCL (EEC)	NA
Other regulations	Take note of Dir 94/33/EC on the protection of young people at work.
Chemical Safety Assessment	For this product a chemical safety assessment was not carried out

16. Other information

Other Information	The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and weassume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Rx Marine International has been advised of the possibility of such damages.
Full text of H-Statements referred to under sections 2 and 3.	EUH032 Contact with acids liberates very toxic gas. H319 Causes serious eye irritation. H411 Toxic to aquatic life with long lasting effects