Material Safety Data Sheet

Potassium Chromate Solution (RXSOL-60-6187-500)

1. Product and Company Identifaction

Product Name	RXSOL-60-6187-500
Product Type	Potassium Chromate Solution

Company Details:

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

Phone	+91 22 65113333 / 5555 / 9999
Fax	+91 22 2781 1318 :::AOH :0091 9821214367
Email	mail@rxmarine.com

2. Composition / informationon ingredients

Mixture

Name	Product identifier	w/w %	Classification (GHS-US)
Water	(CAS No.) 7732-18-5	95	Not classified
Potassium chromate	(CAS No.) 7789-00-6	5	Skin Irrit. 2, H315 Eye Irrit. 2B, H320 Skin Sens. 1, H317 Muta. 1B, H340 Carc. 1A, H350 STOT SE 3, H335 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

3. Hazards Identification

Classification Of The Substance Or Mixture
Classification (GHS-US)
Skin Irrit. 2 H315
Eye Irrit. 2B H320
Skin Sens. 1 H317
Muta. 1B H340
Carc. 1A H350
STOT SE 3 H335

Label Elements
GHS-US labeling
Hazard pictograms (GHS-US) :

GHS07 GHS08

Signal word (GHS-US) : Danger
Hazard statements (GHS-US) : H315 - Causes skin irritation

H317 - May cause an allergic skin reaction

H320 - Causes eye irritation

H335 - May cause respiratory irritation

H340 - May cause genetic defects

H350 - May cause cancer (inhalation)
Precautionary statements (GHS-US) : P201 - Obtain special instructions before use

P202 - Do not handle until all safety precautions have been read and understood

P261 - Avoid breathing mist, spray, vapors.

P264 - Wash hands and forearms thoroughly after handling.

P271 - Use only outdoors or in a well-ventilated area

P272 - Contaminated work clothing should not be allowed out of the workplace

P273 - Avoid release to the environment

P280 - Wear eye protection, protective gloves, protective clothing.

P302+P352 - IF ON SKIN: Wash with plenty of soap and water

P304+P340 - IF INHALED: Remove person to fresh air and keep 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 if you feel unwell

P333+P313 - If skin irritation or rash occurs: Get medical advice/attention

P337+P313 - If eye irritation persists: Get medical advice/attention
P321 - Specific treatment (see see section 4)

P362+P364 - Take off contaminated clothing and wash it before reuse

P391 - Collect spillage

P403+P233 - Store in a well-ventilated place. Keep container tightly closed

P405 - Store locked up

P501 - Dispose of contents/container according to local, regional, national, and international regulations.

Other Hazards
Other hazards not contributing to the classification:
Hazardous to the aquatic environment – Acute Hazard Category 1.
Hazardous to the aquatic environment – Chronic Hazard Category 1.
H400 - Very toxic to aquatic life.
H410- Very toxic to aquatic life with long lasting effects.
Unknown acute toxicity (GHS US) Not available

4. First Aid Measures

Description Of First Aid Measures

General: Never give anything by mouth to an unconscious person. IF exposed or concerned: Get medical advice/attention.

Inhalation: When symptoms occur: go into open air and ventilate suspected area. IF exposed or concerned: Get medical advice/attention.

Skin Contact: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Eye Contact: Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.

Ingestion: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

Most Important Symptoms And Effects Both Acute and Delayed

General: Causes damage to organs through prolonged or repeated exposure. May cause genetic defects. May cause cancer.

Inhalation: May cause cancer by inhalation; May cause respiratory irritation.

Skin Contact: Causes skin irritation. May cause an allergic skin reaction.

Eye Contact: Causes eye irritation, redness and pain.

Ingestion: Ingestion may cause nausea, vomiting and diarrhea.

Chronic symptoms: Prolonged and frequent exposure through inhalation may cause cancer.
Indication Of Any Immediate Medical Attention And Special Treatment Needed
If you feel unwell, seek medical advice (show the label where possible).

5. Fire-fighting Measures

Extinguishing Media

Suitable extinguishing media: Foam. Dry powder. Carbon dioxide. Water spray.

Unsuitable extinguishing media: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

Special Hazards Arising From The Substance Or Mixture

Fire hazard: Not considered flammable but may burn at high temperatures.

Explosion hazard: Explosive when mixed with oxidizing substances.

Reactivity: May cause or intensify fire; oxidizer.

Advice For Firefighters

Precautionary measures fire: Not available

Firefighting instructions: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Do not allow run-off from fire fighting to enter drains or water courses

Protection during firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Potassium oxides, Chromium oxides.

Reference To Other Sections

Refer to section 9 for flammability properties.

6. Accidental Release Measures

Personal Precautions, Protective Equipment And Emergency Procedures

General measures: Avoid all eyes and skin contact and do not breathe vapor and mist.

For Non-Emergency Personnel

Protective equipment : Use appropriate personal protection equipment (PPE).

Emergency procedures: Evacuate unnecessary personnel.

For Emergency Personnel

Protective equipment: Equip cleanup crew with proper protection.

Emergency procedures: Ventilate area.

Environmental Precautions

Prevent entry to sewers and public waters.

Methods And Material For Containment And Cleaning Up

For containment : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for cleaning up: Absorb and/or contain spill with inert material, then place in suitable container.

Potassium Chromate Indicator Solution

Safety Data Sheet
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

---

Reference To Other Sections

See Heading 8. Exposure controls and personal protection

7. Handling and Storage

Precautions For Safe Handling

Hygiene measures: Handle in accordance with good industrial hygiene and safety procedures. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

Conditions For Safe Storage, Including Any Incompatibilities

Storage conditions: Keep only in the original container in a cool, well ventilated place away from :heat and direct sunlight. Keep container closed when not in use. Store locked up.

Incompatible materials: Reacts with (strong) oxidizers

Storage area: Store locked up

Specific End Use(s)
Laboratory Reagent

8. Exposure controls and personal protection

Control Parameters

No Occupational Exposure limits have been established for the product or its components.

Additional information: Not available

Exposure Controls

Appropriate engineering controls: Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure.

Personal protective equipment: Gas mask. Protective clothing. Gloves. Face shield.

Materials for protective clothing: Chemically resistant materials and fabrics
Hand protection: Wear protective gloves.

Eye protection: Chemical goggles or safety glasses.

Skin and body protection: Wear suitable protective clothing.

Respiratory protection: Use a NIOSH-approved respirator or self-contained breathing apparatus whenever exposure may exceed established Occupational Exposure Limits.

Environmental exposure controls: Not available

Other information: When using, do not eat, drink or smoke.

9. Physical and chemical properties

Information On Basic Physical And Chemical Properties

Physical state	Liquid
Appearance	Clear
Odor	Odorless
Odor threshold	Not available
pH	Not available
Relative evaporation rate (butyl acetate=1)	1 (water)
Melting point	2 °C (35.6 °F)
Freezing point	Not available

Boiling point	> 95 °C (203 °F)
Flash point	Clear
Auto-ignition temperature	Odorless
Decomposition Temperature	Not available
Flammability (solid, gas)	Not available
Lower flammable limit	1 (water)
Upper flammable limit	2 °C (35.6 °F)
Vapor pressure	Not available
Relative vapor density at 20 °C	Not available
Relative density	Not available
Specific gravity density	Not available
Solubility	Soluble in water.
Log Pow	Not available
Log Kow Viscosity, kinematic	Not available
Viscosity, dynamic	Not available
Explosion data - sensitivity to mechanical impact	Not available

Explosion data - sensitivity to static discharge	Not available

10. Stability and reactivity

Reactivity May cause or intensify fire; oxidizer.

Chemical Stability Explosive when mixed with oxidizing substances.

Possibility Of Hazardous Reactions Hazardous polymerization will not occur.

Conditions To Avoid Direct sunlight. Extremely high or low temperatures.

Incompatible Materials Strong acids. Strong bases. Avoid strong oxidizers. Reducing agents. Acid anhydrides.

Hazardous Decomposition Products Potassium oxides. Chromium oxides.

11. Toxicological information

Information On Toxicological Effects - Product

Acute toxicity : Not classified

LD50 and LC50 Data Not available

Skin corrosion/irritation: Causes skin irritation.

Serious eye damage/irritation: Causes eye irritation.

Respiratory or skin sensitization: May cause an allergic skin reaction.

Germ cell mutagenicity : May cause genetic defects.

Teratogenicity: Not available

Carcinogenicity: May cause cancer (inhalation).

Specific target organ toxicity (repeated exposure): Causes damage to organs through prolonged or repeated exposure.

Reproductive toxicity: May damage fertility or the unborn child.

Specific target organ toxicity (single exposure): Causes damage to organs. May cause respiratory irritation.

Aspiration hazard: Not classified

Symptoms/injuries after inhalation: May cause respiratory irritation.

Symptoms/injuries after skin contact: Causes skin irritation. May cause an allergic skin reaction.

Symptoms/injuries after eye contact: Causes eye irritation. Redness, pain.

Information On Toxicological Effects - Ingredient(s)

Potassium Chromate Indicator Solution

Safety Data Sheet
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

LD50 and LC50 Data Not available

Potassium chromate (7789-00-6)

IARC group

12. Ecological information

Toxicity

Very toxic to aquatic life with long lasting effects.

Persistence And Degradability

Potassium Chromate Indicator Solution

Persistence and degradability	Not established.

Bioaccumulative Potential

Potassium Chromate Indicator Solution

Bioaccumulative potential	Not established.

Mobility In Soil Not available

Other Adverse Effects

Other information: Avoid release to the environment.

13. Disposal considerations

Sewage disposal recommendations: This material is hazardous to the aquatic environment. Keep out of sewers and waterways.

Waste disposal recommendations: Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.

Ecology - waste materials: Avoid release to the environment.

14. Transport information

In accordance with ICAO/IATA/DOT/TDG

UN Number

UN-No.(DOT): 3139

DOT NA no.: UN3139

UN Proper Shipping Name

UN technical shipping descriptor : (Potassium chromate)

Department of Transportation (DOT) Hazard Classes : 5.1 - Class 5.1 - Oxidizer 49 CFR 173.128

Hazard labels (DOT) : 5.1 - Oxidizer

DOT Symbols : G - Identifies PSN requiring a technical name

Packing group (DOT) : III - Minor Danger
DOT Special Provisions (49 CFR 172.102) : 127 - Mixtures containing oxidizing and organic materials transported under this entry may not meet the definition and criteria of a Class 1 material. (See 173.50 of this subchapter.) 128Regardless of the provisions of 172.101(c)(12), aluminum smelting by-products and aluminum remelting by-products described under this entry, meeting the definition of Class 8, Packing Group II and III may be classed as a Division 4.3 material and transported under this entry. The presence of a Class 8 hazard must be

communicated as required by this Part for subsidiary hazards. A2 - Single packaging are not permitted on aircraft.

Potassium Chromate Indicator Solution

Safety Data Sheet
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

---

IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized.

DOT Packaging Exceptions (49 CFR 173.xxx) : 152

DOT Packaging Non Bulk (49 CFR 173.xxx) : 203

DOT Packaging Bulk (49 CFR 173.xxx) : 241

Additional information

Emergency Response Guide (ERG) Number : 140

Overland transport Not regulated for transport

Transport by sea

DOT Vessel Stowage Location :
B - (i) The material may be stowed ‘‘on deck’’ or ‘‘under deck’’ on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) ‘‘On deck only’’ on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded.

DOT Vessel Stowage Other :
56 - Stow ‘‘separated from’’ ammonium compounds,58 - Stow ‘‘separated from’’ cyanides,106 - Stow ‘‘separated from’’ powdered metal

Air transport

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 2.5 L

DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 30 L

15. Regulatory information

US Federal regulations

Potassium chromate (7789-00-6)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

EPA TSCA Regulatory Flag — R - R - indicates a substance that is the subject of a Section 6 risk management rule under TSCA.

Water (7732-18-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

US State regulations

Potassium chromate (7789-00-6)

U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities

U.S. - Louisiana - Reportable Quantity List for Pollutants

U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 1

U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 2

U.S. - Massachusetts - Oil & Hazardous Material List - Reportable Quantity

U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 1

U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 2

U.S. - Massachusetts - Right To Know List

U.S. - Massachusetts - Toxics Use Reduction Act U.S. - Michigan - Polluting Materials List

U.S. - New Jersey - Discharge Prevention - List of Hazardous Substances

U.S. - New Jersey - Right to Know Hazardous Substance List

U.S. - New Jersey - Special Health Hazards Substances List

U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances

U.S. - North Carolina - Control of Toxic Air Pollutants

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

U.S. - Pennsylvania - RTK (Right to Know) List

Canadian regulations

Potassium Chromate Indicator Solution

WHMIS Classification	Class C - Oxidizing Material Class D Division 2 Subdivision A - Very toxic material causing other toxic effects Class D Division 2 Subdivision B - Toxic material causing other toxic effects

Potassium chromate (7789-00-6)

Listed on the Canadian DSL (Domestic Substances List) inventory.

Listed on the Canadian Ingredient Disclosure List

WHMIS Classification	Class C - Oxidizing Material Class D Division 2 Subdivision A - Very toxic material causing other toxic effects Class D Division 2 Subdivision B - Toxic material causing other toxic effects

Water (7732-18-5)

Listed on the Canadian DSL (Domestic Substances List) inventory.

WHMIS Classification	Uncontrolled product according to WHMIS classification criteria

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by CPR.

16. Other information

Data sources : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

GHS Full Text Phrases:

Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment - Chronic Hazard Category 1
Carc. 1A	Carcinogenicity Category 1A
Eye Irrit. 2B	Serious eye damage/eye irritation Category 2B
Muta. 1B	Germ cell mutagenicity Category 1B
Skin Irrit. 2	skin corrosion/irritation Category 2
Skin Sens. 1	Skin sensitization Category 1
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H335	May cause respiratory irritation
H340	May cause genetic defects
H350	May cause cancer
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

Potassium Chromate Indicator Solution

Safety Data Sheet
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

---

NFPA health hazard : 3 - Short exposure could cause serious temporary or residual injury even though prompt medical attention was given.

NFPA fire hazard : 2 - Must be moderately heated or exposed to relatively high temperature before ignition can occur.

NFPA reactivity : 1 - Normally stable, but can become unstable at elevated temperatures and pressures or may react with water with some release of energy, but not violently.

NFPA specific hazard : OX - This denotes an oxidizer, a chemical which can greatly increase the rate of combustion/fire.

HMIS III Rating

Health : 4 Severe Hazard - Life-threatening, major or permanent damage may result from single or repeated overexposures

Flammability : 1 Slight Hazard

Physical : 1 Slight Hazard

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.