Material Safety Data Sheet

Corrosion Inhibitor (RXSOL-16-1047-210)

1. Product and Company Identifaction

Part Number	RXSOL-16-1047-210
Product Name	Corrosion Inhibitor

Company Details:

RX MARINE INTERNATIONAL
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2. Composition / informationon ingredients

This product is classified as dangerous in accordance with the Preparations Directive 1999/45/EC.

Hazardous Substance(s)	EINECS / ELINCS NO	SYMBOL	R-PHRASES / NOTAS	% (w/w)
Thioglycolic Acid	200-677-4	T	R23/24/25, R34	1 - 5
Imidazoline Salts	Proprietary	Xi	R38, R41,R52/53	5 - 10
Quaternary Ammonium compound	Proprietary	C, N	R22, R34, R50	1 - 5

Refer to Section 16 for descriptions of relevant risk phrases and Notas.

3. Hazards Identification

HAZARD CLASSIFICATION :	This product is classified as dangerous in accordance with the Preparations Directive 1999/45/EC. Toxic by inhalation, in contact with skin and if swallowed. Irritating to eyes and skin
HUMAN HEALTH HAZARDS - ACUTE :	
INHALATION :	Toxic by inhalation. Repeated or prolonged exposure may irritate the respiratory tract.
SKIN CONTACT :	Toxic in contact with skin. Can cause moderate irritation
EYE CONTACT	Irritating, and will injure eye tissue if not removed promptly

INGESTION :	Not a likely route of exposure. Toxic if swallowed
PHYSICAL AND CHEMICAL HAZARDS	Combustible

4. First Aid Measures

INHALATION :	Remove to fresh air, treat symptomatically. If symptoms develop, seek medical advice
SKIN CONTACT	Immediately flush with plenty of water for at least 15 minutes. If symptoms develop, seek medical advice.
EYE CONTACT	Immediately flush eye with water for at least 15 minutes while holding eyelids open. If symptoms develop, seek medical advice
INGESTION	Do not induce vomiting without medical advice. If conscious, washout mouth and give water to drink. If reflexive vomiting occurs, rinse mouth and repeat administration of water.
NOTE TO PHYSICIAN	Based on the individual reactions of the patient, the physician's judgement should be used to control symptoms and clinical condition

5. Fire-fighting Measures

FLASH POINT :	83 °C PMCC
EXTINGUISHING MEDIA	Foam, Carbon dioxide, Dry powder, Other extinguishing agent suitable for Class B fires, For large fires, use water spray or fog, thoroughly drenching the burning material. Water mist may be used to cool closed containers
FIRE AND EXPLOSION HAZARD	Combustible Liquid; may form combustible mixtures at or above the flash point. Empty product containers may contain product residue. Do not pressurize, cut, heat, weld, or expose containers to flame or other sources of ignition. May evolve oxides of carbon (COx) under fire conditions. May evolve oxides of nitrogen (NOx) and sulfur (SOx) under fire conditions. May evolve ammonia under fire conditions .
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE FIGHTING	In case of fire, wear a full face positive-pressure self contained breathing apparatus and protective suit

6. Accidental Release Measures

PERSONAL PRECAUTIONS	Restrict access to area as appropriate until clean-up operations are complete. Use personal protective equipment recommended in Section 8 (Exposure Controls/Personal Protection). Stop or reduce any leaks if it is safe to do so. Ventilate spill area if possible. Remove sources of ignition. Ensure clean-up is conducted by trained personnel only. Do not touch spilled material. Have emergency equipment (for fires, spills, leaks, etc.)readily available. Notify appropriate government, occupational health and safety and environmental Authorities
METHODS FOR CLEANING UP	SMALL SPILLS: Soak up spill with absorbent material. Place residues in a suitable, covered, properly labeled container. Wash affected area. LARGE SPILLS: Contain liquid using absorbent material, by digging trenches or by diking. Reclaim into recovery or salvage drums or tank truck for proper disposal. Clean contaminated surfaces with water or aqueous cleaning agents. Contact an approved waste hauler for disposal of contaminated recovered material. Dispose of material in compliance with regulations indicated in Section 13(Disposal Considerations)..

ENVIRONMENTAL PRECAUTIONS	Do not contaminate surface water

7. Handling and Storage

HANDLING	Do not get in eyes, on skin, on clothing. Do not take internally. Use with adequate ventilation. Do not breathe vapors/gases/dust. Keep the containers closed when not in use. Have emergency equipment (for fires, spills, leaks, etc.) readily available. Ensure all containers are labelled. Do not use, store, spill or pour near heat, sparks or open flame
STORAGE CONDITIONS	Store in suitable labelled containers. Store the containers tightly closed. Store away from heat and sources of ignition. Have appropriate fire extinguishers available in and near the storage area. Connections must be grounded to avoid electrical charges
SUITABLE CONSTRUCTION MATERIAL	HDPE (high density polyethylene), Stainless Steel 304, Stainless Steel 316L, MDPE (medium density polyethylene), Nitrile, PTFE, Perfluoroelastomer, Compatibility with Plastic Materials can vary; we therefore recommend that compatibility is tested prior to use
UNSUITABLE CONSTRUCTION MATERIAL	Viton, Neoprene, Carbon Steel C1018

8. Exposure controls and personal protection

MONITORING MEASURES

A small volume of air is drawn through an absorbant or barrier to trap the substance(s) which can then be desorbed or removed and analyzed as referenced below

Substance(s)	Method	Analysis	Absorbant
Thioglycolic Acid	US OSHA: CIM	High pressure liquid chromatography	Impinger containing De-ionised water

ENGINEERING MEASURES	General ventilation is recommended. The use of local exhaust ventilation is recommended to control emissions near the source. Laboratory samples should be handled in a fumehood. Provide mechanical ventilation of confined spaces
PERSONAL PROTECTION	
GENERAL ADVICE	The use and choice of personal protection equipment is related to the hazard of the product, the workplace and the way the product is handled. In general, we recommend as a minimum precaution that safety glasses with side-shields and workclothes protecting arms, legs and body be used. In addition any person visiting an area where this product is handled should at least wear safety glasses with side-shields.
RESPIRATORY PROTECTION	Where concentrations in air may exceed the limits given in this section, the use of a half face filter mask or air supplied breathing apparatus is recommended. A suitable filter material depends on the amount and type of chemicals being handled.
HAND PROTECTION	When handling this product, the use of chemical use PVC Gloves should be replaced immediately if signs of degradation are observed. Breakthrough time not determined as preparation, consult PPE manufacturers.

SKIN PROTECTION	When handling this product, the use of overalls, a chemical resistant apron and rubber boots is recommended. A full slicker suit is recommended if gross exposure is possible.
EYE PROTECTION	Wear chemical splash goggles.
HYGIENE RECOMMENDATIONS	Use good work and personal hygiene practices to avoid exposure. Keep an eye wash fountain available. Keep a safety shower available. If clothing is contaminated, remove clothing and thoroughly wash the affected area. Launder contaminated clothing before reuse. Always wash thoroughly after handling chemicals. When handling this product never eat, drink or smoke

9. Physical and chemical properties

PHYSICAL STATE	Liquid
APPEARANCE	Clear Amber
ODOR	Pungent
FLASH POINT	83 °C PMCC
SPECIFIC GRAVITY	1.008 (15 °C)
SOLUBILITY IN WATER	Complete
pH (100 %)	5.3 - 5.5
MELTING POINT	ASTM D-97 1.51 °C

Note: These physical properties are typical values for this product and are subject to change

10. Stability and reactivity

STABILITY	Stable under normal conditions.
HAZARDOUS POLYMERIZATION	Hazardous polymerization will not occur
CONDITIONS TO AVOID	Heat and sources of ignition including static discharges
MATERIALS TO AVOID	Contact with strong acids (e.g. sulfuric, phosphoric, nitric, hydrochloric, chromic, sulfonic) may generate heat, splattering or boiling and toxic vapors., Contact with strong oxidizers (e.g. chlorine, peroxides, chromates, nitric acid, perchlorate, concentrated oxygen, permanganate) may generate heat, fires, explosions and/or toxic vapors., Avoid contact with SO2 or acidic bisulfite products, which may react to form visible airborne amine salt particles., Certain amines in contact with nitrous acid, organic or inorganic nitrites or atmospheres with high nitrous oxide concentrations may produce N-nitrosamines, many of which are cancer-causing agents to laboratory animals
HAZARDOUS DECOMPOSITION PRODUCTS	
Under fire conditions	Oxides of carbon, Oxides of nitrogen, Oxides of sulfur, ammonia

11. Toxicological information

No toxicity studies have been conducted on this product

SENSITIZATION	This product is not expected to be a sensitizer
CARCINOGENICITY	None of the substances in this product are listed as carcinogens by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP) or the American Conference of Governmental Industrial Hygienists (ACGIH).

For additional information on the hazard of the preparation, please consult section 3 and 12

12. Ecological information

ECOTOXICOLOGICAL EFFECTS

MOBILITY	The environmental fate of this product under the defined conditions of the models. If released into the environment this material is expected to distribute to the air, water and soil/sediment in the approximate respective percentages (Air-5%, Water- 30 - 50%, Soil/Sediment- 50 - 70%) The portion in water is expected to be soluble or dispersible
PERSISTENCY AND DEGRADATION	The organic portion of this preparation is expected to be readily biodegradable
BIOACCUMULATION POTENTIAL	Component substances have a low potential to bioconcentrate

13. Disposal considerations

Use authorized contractors and ensure compliance with EC, national and local regulations.

Dispose of wastes in an approved incinerator or waste treatment/disposal site, in accordance with all applicable regulations. Do not dispose of wastes in local sewer or with normal garbage. This product is ashless and can be burned directly in appropriate equipment. This product is NOT suitable for disposal via municipal sewers, drains, natural streams or rivers.

Empty drums should be taken for recycling, recovery, or disposal through a suitably qualified or licensed contractor.

EUROPE WASTE CODE	16 03 05*- OFF SPECIFICATION BATCHES AND UNUSED PRODUCTS - Organic wastes containing dangerous substances. If this product is used in any further processes, the final user must redefine and assign the most appropriate European Waste Catalogue Code.

14. Transport information

Not classified as hazardous . Can easly transport by Land, Air and sea. Typical Proper Shipping Names for this product are as follows.

LAND TRANSPORT

Proper Shipping Name	PRODUCT IS NOT REGULATED DURING TRANSPORTATION.

AIR TRANSPORT (ICAO/IATA)

Proper Shipping Name	PRODUCT IS NOT REGULATED DURING TRANSPORTATION

MARINE TRANSPORT (IMDG/IMO)

Proper Shipping Name	PRODUCT IS NOT REGULATED DURING TRANSPORTATION

15. Regulatory information

CLASSIFICATION AND LABELLING

GOVERNING DIRECTIVE(S):	Dangerous Substances Directive 67/548/EEC and Dangerous Preparations Directive 1999/45/EC.
HAZARD SYMBOLS	T
	Contains:..Thioglycolic Acid

RISK PHRASES

R23/24/25 -	Toxic by inhalation, in contact with skin and if swallowed
R36/38 -	Irritating to eyes and skin

SAFETY PHRASES

S24/25 -	Avoid contact with skin and eyes
S26-	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
S28 -	After contact with skin, wash immediately with plenty of water.
S45 -	In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

INTERNATIONAL CHEMICAL CONTROL LAWS
UNITED STATES
The substances in this preparation are included on or exempted from the TSCA 8(b) Inventory (40 CFR 710)

CANADA :
This product contains substance(s) which are found on the Non-Domestic Substances List (NDSL), or are not in compliance with other Canadian Acts.

EUROPE
The substances in this preparation have been reviewed for compliance with the EINECS or ELINCS inventories.

JAPAN
All substances in this product comply with the Law Regulating the Manufacture and Importation Of Chemical Substances and are listed on the Ministry of International Trade & industry List (MITI).

16. Other information

LIST OF RELEVANT R-PHRASES AND NOTAS IN SECTION 2
R10 - Flammable.
R22 - Harmful if swallowed.
R23/24/25 - Toxic by inhalation, in contact with skin and if swallowed.
R34 - Causes burns.
R35 - Causes severe burns.
R38 - Irritating to skin.
R41 - Risk of serious damage to eyes.
R50 - Very toxic to aquatic organisms.
R52/53 - Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

The information provided about the product on this Safety Data Sheet has been compiled from knowledge of the individual constituents The data given here is based on current knowledge and experience. This Safety Data Sheet describes the product in terms of safety requirements and does not signify any warranty with regard to the product's properties.The data given here only applies when product used for proper application(s). The productis not sold as suitable for other applications - usage in such may cause risks not mentioned in this sheet. Do not use for other application(s) without seeking advice from manufacturer.

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