

Safety Data Sheet

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

Revision date: 03/24/2014

Supersedes: 01/01/2009

Version: 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Trade name : RP-749 CORROSION INHIBITOR
Product form : Mixture

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Corrosion Inhibitor

1.3. Details of the supplier of the safety data sheet

Kriss Premium Products, Inc.
3400 East 42nd Street
Minneapolis, MN 55406

1.4. Emergency telephone number

Emergency number : INFORMATION: 612-722-8485
CHEMTREC: (800) 424-9300

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Classification (GHS-US)**

Ox. Liq. 3 H272
Acute Tox. 4 (Oral) H302
Skin Corr. 1A H314
Skin Sens. 1 H317

2.2. Label elements**GHS-US labeling**

Hazard pictograms (GHS-US) :



Signal word (GHS-US) :

Danger

Hazard statements (GHS-US) :

H272 - May intensify fire; oxidizer
H302 - Harmful if swallowed
H314 - Causes severe skin burns and eye damage
H317 - May cause an allergic skin reaction

Precautionary statements (GHS-US) :

P220 - Keep/Store away from organic material, reducing agents, combustible materials
P260 - Do not breathe mist, spray, vapors
P264 - Wash skin and clothing thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P272 - Contaminated work clothing should not be allowed out of the workplace
P280 - Wear eye protection, face protection, protective clothing, protective gloves
P301+P330+P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting
P310 - Immediately call a POISON CENTER or doctor/physician
P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position 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
P321 - Specific treatment (see first aid instructions on this label)
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention
P363 - Wash contaminated clothing before reuse
P370+P378 - In case of fire: Use water for extinction
P405 - Store locked up
P501 - Dispose of contents/container to licensed waste handling facility

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS-US)

No data available

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SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%
Sodium nitrite	(CAS No) 7632-00-0	15 - 40
Potassium hydroxide	(CAS No) 1310-58-3	1 - 5
Sodium mercaptobenzothiazole	(CAS No) 2492-26-4	0.1 - 1

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
- First-aid measures after inhalation : IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician.
- First-aid measures after skin contact : IF ON SKIN: Immediately rinse with plenty of water (for at least 15 minutes). Get medical advice/attention.
- First-aid measures after eye contact : IF IN EYES: Rinse immediately and thoroughly, pulling the eyelids well away from the eye (15 minutes minimum). Get medical advice/attention.
- First-aid measures after ingestion : IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries : Causes severe skin burns and eye damage. Harmful if swallowed. May cause an allergic skin reaction.
- Symptoms/injuries after inhalation : May cause headache, nausea and irritation of respiratory tract.
- Symptoms/injuries after skin contact : Highly corrosive to skin. This product contains small amounts of an ingredient which has been reported to cause skin sensitization reactions in humans.
- Symptoms/injuries after eye contact : Causes serious eye burns.
- Symptoms/injuries after ingestion : Severe irritation or burns to the mouth, throat, esophagus, and stomach.
- Chronic symptoms : No data available.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

- suitable extinguishing media : Water spray. Carbon dioxide. Alcohol-resistant foam. Dry powder.
- Unsuitable extinguishing media : Do not use : Dry chemicals containing ammonium phosphate.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : The product is not flammable. May intensify fire; oxidizer.
- Explosion hazard : Product may react vigorously with organics or other materials resulting in an explosion and fire.
- Reactivity : Reacts violently with oxidizable substances, ammonium salts, urea, food, and animal feeds.

5.3. Advice for firefighters

- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Do not dispose of fire-fighting water in the environment.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Evacuate area. Keep upwind. Ventilate area. Spill should be handled by trained clean-up crews properly equipped with respiratory equipment and full chemical protective gear (see Section 8).

6.1.1. For non-emergency personnel

- Protective equipment : Wear Protective equipment as described in Section 8.
- Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

- Protective equipment : Wear suitable protective clothing, gloves and eye or face protection. Approved supplied-air respirator, in case of emergency.

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6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

6.3. 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 : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Place in a suitable container for disposal in accordance with the waste regulations (see Section 13).

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Do not handle until all safety precautions have been read and understood. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. Do not breathe the mists. Keep away from sources of ignition - No smoking.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Combustible materials and Heat sources. Avoid Freezing. Keep container closed when not in use.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Potassium hydroxide (1310-58-3)	
ACGIH Ceiling (mg/m ³)	2 mg/m ³
OSHA PEL (Ceiling) (mg/m ³)	2 mg/m ³ vacated

Sodium mercaptobenzothiazole (2492-26-4)	
Remark (ACGIH)	OELs not established
Remark (US OSHA)	OELs not established

Sodium nitrite (7632-00-0)	
Remark (ACGIH)	OELs not established
Remark (US OSHA)	OELs not established

8.2. Exposure controls

Appropriate engineering controls : Ensure adequate ventilation, especially in confined areas.

Personal protective equipment : Gloves. Protective goggles. Face shield. Protective clothing. Respiratory protection of the dependent type.



Hand protection : Protective gloves made of rubber.

Eye protection : Eye protection, including both chemical splash goggles and face shield, must be worn when possibility exists for eye contact due to spraying liquid or airborne particles.

Skin and body protection : Corrosionproof clothing.

Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

Appearance : Clear.

Color : No data available

Odor : slight.

Odor Threshold : No data available

pH : 11.8 (1% solution)

Relative evaporation rate (butyl acetate=1) : No data available

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Melting point	: No data available
Freezing point	: No data available
Boiling point	: 100 °C (212 °F)
Flash point	: No data available
Self ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: 17 mm Hg
Relative vapor density at 20 °C	: No data available
Relative density	: 1.23
Solubility	: Water: Complete
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Reacts violently with oxidizable substances, ammonium salts, urea, food, and animal feeds.

10.2. Chemical stability

Stable under recommended handling and storage conditions (see section 7).

10.3. Possibility of hazardous reactions

Refer to section 10.1 on Reactivity.

10.4. Conditions to avoid

Heat. Sparks. Open flame.

10.5. Incompatible materials

Avoid contact with inorganic acids, organic nitrogen compounds, organic mixtures, and reducing agents (hydrogen, hydrazine, sulfides, and sulfites).

10.6. Hazardous decomposition products

Thermal decomposition generates : Nitrogen oxides. Carbon oxides (CO, CO₂).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Harmful if swallowed.

Potassium hydroxide (1310-58-3)	
LD50 oral rat	214 mg/kg

Sodium mercaptobenzothiazole (2492-26-4)	
LD50 oral rat	750 mg/kg (Source: IUCLID)
LD50 dermal rabbit	> 1250 mg/kg (Source: IUCLID)

Sodium nitrite (7632-00-0)	
LD50 oral rat	85 mg/kg (Source: IUCLID)
LC50 inhalation rat (mg/l)	5.5 mg/l/4h (Source: IUCLID)
ATE (vapors)	5.500 mg/l/4h
ATE (dust, mist)	5.500 mg/l/4h

Skin corrosion/irritation	: Causes severe skin burns and eye damage. pH: 11.8 (1% solution)
Serious eye damage/irritation	: Causes severe skin burns and eye damage. pH: 11.8 (1% solution)
Respiratory or skin sensitization	: May cause an allergic skin reaction.

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Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified
Symptoms/injuries after inhalation	: May cause headache, nausea and irritation of respiratory tract.
Symptoms/injuries after skin contact	: Highly corrosive to skin. This product contains small amounts of an ingredient which has been reported to cause skin sensitization reactions in humans.
Symptoms/injuries after eye contact	: Causes serious eye burns.
Symptoms/injuries after ingestion	: Severe irritation or burns to the mouth, throat, esophagus, and stomach.
Chronic symptoms	: No data available.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Very toxic to aquatic life.

12.2. Persistence and degradability

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Persistence and degradability	No data available.
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12.3. Bioaccumulative potential

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Bioaccumulative potential	No information available.
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12.4. Mobility in soil

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Ecology - soil	No data available.
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12.5. Other adverse effects

Other adverse effects : No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Do not discharge to public wastewater systems without permit of pollution control authorities. No discharge to surface waters is allowed without an NPDES permit.

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Do not allow the product to be released into the environment.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN-No.(DOT)	: 3098
DOT NA no.	UN3098

14.2. UN proper shipping name

DOT Proper Shipping Name	: Oxidizing liquid, corrosive, n.o.s. (contains Sodium nitrite, Potassium hydroxide)
Department of Transportation (DOT) Hazard Classes	: 5.1 - Class 5.1 - Oxidizer 49 CFR 173.128
Hazard labels (DOT)	: 5.1 - Oxidizer 8 - Corrosive



DOT Symbols	: G - Identifies PSN requiring a technical name
Packing group (DOT)	: III - Minor Danger

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14.3. Additional information

Other information : No supplementary information available.

Overland transport

No additional information available

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 : 34 - Stow "away from" foodstuffs, 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 : 2.5 L
(49 CFR 173.27)

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

SECTION 15: Regulatory information

15.1. US Federal regulations

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All chemical substances in this product are listed in the EPA (Environmental Protection Agency) TSCA (Toxic Substances Control Act) Inventory

SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Reactive hazard
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Potassium hydroxide (1310-58-3)

Listed on the United States TSCA (Toxic Substances Control Act) inventory
Listed on SARA Section 313 (Specific toxic chemical listings)

RQ (Reportable quantity, section 304 of EPA's List of Lists) :	1000 lb
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SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard
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Sodium mercaptobenzothiazole (2492-26-4)

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

Sodium nitrite (7632-00-0)

Listed on the United States TSCA (Toxic Substances Control Act) inventory
Listed on SARA Section 313 (Specific toxic chemical listings)

RQ (Reportable quantity, section 304 of EPA's List of Lists) :	100 lb
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SARA Section 313 - Emission Reporting	1 % de minimis concentration
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15.2. International regulations

CANADA

Potassium hydroxide (1310-58-3)

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

Sodium mercaptobenzothiazole (2492-26-4)

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

Sodium nitrite (7632-00-0)

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

EU-Regulations

No additional information available

15.2.2. National regulations

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Potassium hydroxide (1310-58-3)

Listed on the AICS (the Australian Inventory of Chemical Substances)
Listed on Inventory of Existing Chemical Substances (IECSC)
Listed on the Japanese ENCS (Existing & New Chemicals Substances) inventory.
Listed on KECI (Chemical Inventory of Korea)

Sodium mercaptobenzothiazole (2492-26-4)

Listed on the AICS (the Australian Inventory of Chemical Substances)
Listed on Inventory of Existing Chemical Substances (IECSC)
Listed on the Japanese ENCS (Existing & New Chemicals Substances) inventory.
Listed on KECI (Chemical Inventory of Korea)

Sodium nitrite (7632-00-0)

Listed on the AICS (the Australian Inventory of Chemical Substances)
Listed on Inventory of Existing Chemical Substances (IECSC)
Listed on the Japanese ENCS (Existing & New Chemicals Substances) inventory.
Listed on KECI (Chemical Inventory of Korea)

15.3. US State regulations

Potassium hydroxide (1310-58-3)

U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

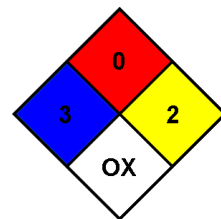
Sodium nitrite (7632-00-0)

U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

SECTION 16: Other information

Indication of changes : Revision 1.0 – 24 Mar 2014 - New SDS Created.
Other information : Author. JAH.

NFPA health hazard : 3 - Short exposure could cause serious temporary or residual injury even though prompt medical attention was given.
NFPA fire hazard : 0 - Materials that will not burn.
NFPA reactivity : 2 - Normally unstable and readily undergo violent decomposition but do not detonate. Also: may react violently with water or may form potentially explosive mixtures with water.
NFPA specific hazard : OX - This denotes an oxidizer, a chemical which can greatly increase the rate of combustion/fire.



HMIS III Rating

Health : 3
Flammability : 0
Physical : 2
Personal Protection :

We believe that the information contained on this Material Safety Data Sheet is accurate. The suggested procedures are based on experience as of the date of publication. They are not necessarily adequate in every circumstance. These suggestions should not be confused with or followed in violation of applicable laws, regulations, rules or insurance requirements. The seller makes no warranty expressed or implied concerning the accuracy or any results obtained from the use of any information and no warranty expressed or implied concerning the use of the products. The buyer assumes all risks of the use and/or handling.