SECTION 1: IDENTIFICATION

DISTRIBUTOR: Better Engineering Mfg., Inc.  
8361 Town Center Court  
Baltimore, MD 21236  
www.betterengineering.com  

DATE:  
June 25, 2015  

SUPERSEDES:  
December 1, 2013  

EMERGENCY PHONE:  
800-535-5053  
(INFOTRAC)  

TRADE NAME: RPN-225  

PRODUCT TYPE: Liquid Rust Inhibitor

SECTION 2: INGREDIENTS

HAZARDOUS COMPONENTS | CAS NO. | EXPOSURE LIMITS | % BY WT.  
--- | --- | --- | ---  
Sodium Nitrite | 7632-00-0 | N/A | 27%  
Sodium Tetraborate Pentahydrate | 12179-04-3 | N/A | Not regulated  

All other ingredients are reported to be non-hazardous per 29 CFR 1910.

SECTION 3: HAZARDS IDENTIFICATION

DANGER

STATEMENT: Toxic if swallowed. Oxidizer. May ignite organic material and react with other materials. Can decompose if mixed with acids or exposed to fire conditions, releasing toxic nitrogen oxides.

PRIMARY ROUTES OF ENTRY | Inhalation? | Skin? | Ingestion? | Eyes?  
--- | --- | --- | --- | ---  
Yes | Yes | Yes | Yes |  

EMERGENCY OVERVIEW... Very hazardous in case of eye contact or ingestion. Irritant in case of skin contact. Prolonged exposure to skin may cause burns. Overexposure by inhalation may cause respiratory irritation.

Medical conditions generally aggravated by exposure... Asthma

HEALTH HAZARDS (Acute and Chronic)

EYES: Strong irritation or burning. May cause severe damage to the cornea.

SKIN: Irritant. May cause redness or burning of skin, mild to severe depending on contact time.

INGESTION: May cause irritation, burning, inflammation of the mouth, esophagus and digestive tract. Mild to severe depending on dose. Swallowing moderate amounts of sodium nitrite can result in serious toxic effects including death. Effects include nausea, weakness, cyanosis (blue skin), collapse and coma, possibly leading to death. Sodium nitrite interferes with the blood’s ability to transport oxygen.

INHALATION: May cause mild to severe irritation of respiratory tract dependent on extent of exposure. Under normal conditions, using adequate ventilation no problems are expected.

CARCINOGENICITY

NTP? Not listed

IARC MONOGRAPHS? Not listed

OSHA REGULATED? No
TERATOLOGY (BIRTH DEFECT) INFORMATION
Not classified as a teratogen

REPRODUCTION INFORMATION
Does not harm reproductive cells

SECTION 4: FIRST AID

EMERGENCY AND FIRST AID PROCEDURES

EYES
Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes then continue rinsing eye(s). Get medical attention immediately.

SKIN
Wash contact area thoroughly with cool water and soap; remove contaminated clothing and shoes. Wash clothing before re-use and discard contaminated shoes. If irritation persists, seek medical attention.

INGESTION
Never give anything by mouth to an unconscious person. If swallowed, do not induce vomiting. Give large quantities of lukewarm water. If vomiting occurs spontaneously, keep airway clear and give more water. Get medical attention immediately.

INHALATION
If overcome by exposure, remove victim to fresh air. Give oxygen or artificial respiration if needed. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth. Get medical attention immediately.

NOTE TO PHYSICIANS: Sodium Nitrite forms Methemoglobin in the blood stream. Treat accordingly.

SECTION 5: FIRE AND EXPLOSION HAZARD DATA

FLASH POINT................. None to boiling
AUTOIGNITION TEMPERATURE.... N/A
LOWER FLAMMABLE LIMIT....... N/A
UPPER FLAMMABLE LIMIT....... N/A
HAZARDOUS COMBUSTION PRODUCTS: Oxides of Carbon and Nitrogen.
EXTINGUISHING MEDIA... Use flooding amounts of water. Do not use dry chemicals containing ammonium phosphates.
SPECIAL FIRE FIGHTING PROCEDURES.... Keep containers cool to avoid building up pressure. Wear appropriate and suitable protective clothing and breathing equipment for the situation. Follow NFPA fire protection guidelines.
UNUSUAL FIRE AND EXPLOSION HAZARD... Do not mix with ammonia. Dry Sodium Nitrite is an oxidizer and will support combustion.

SECTION 6: ACCIDENTAL RELEASE MEASURES

CONTAINMENT TECHNIQUES:
Small spill: Use appropriate containment to avoid run-off. Collect free material. Absorb remainder on inert absorbent. Wash with plenty of water.
Large spill: Dike area with spill booms or sand. If possible, clean up spill area on a dry basis and then flush with plenty of water. Absorb liquid with vermiculite, floor absorbent or other material.

Keep out of sewer, streams, ponds, lakes or other waterways.

SPILL / LEAK CLEAN-UP PROCEDURES AND EQUIPMENT: Wet-vac or mop up spills.

EVACUATION PROCEDURES: Remove unnecessary personnel

SPECIAL INSTRUCTIONS: Wear impervious gloves and splash proof safety goggles or glasses. Wear impervious boots if standing in solution.

SECTION 7: SAFE HANDLING AND STORAGE

HANDLING PRACTICES AND WARNINGS:
Keep away from heat, sparks, sources of ignition and combustible materials. Wear appropriate personal protective equipment.

STORAGE PRACTICES AND WARNINGS:
Sodium Nitrite is an oxidizer. Keep container lightly closed. Keep in a cool well ventilated area.
### SECTION 8: SPECIAL PROTECTION INFORMATION

#### PERSONAL PROTECTION EQUIPMENT

| RESPIRATORY PROTECTION *(Specify type)* | None usually needed |
| VENTILATION                           | Use local and general exhaust ventilation to remove and prevent buildup of mist/vapors/fumes generated from handling this product |
| PROTECTIVE GLOVES                     | Impervious gloves, rubber or neoprene |
| EYE PROTECTION                        | Splash proof safety goggles |
| OTHER PROTECTIVE CLOTHING AND EQUIPMENT | Safety apron. Impervious boots if standing in solution. |
| WORK/HYGENIC PRACTICES                | Keep away from food or drink. Wash hands after use and before eating, drinking, or smoking. |

### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

| BOILING POINT                         | >200°F |
| SPECIFIC GRAVITY *(H₂O = 1)*          | 1.19   |
| VAPOR PRESSURE *(mm HG)*              | <0.1   |
| MELTING POINT                         | N/A    |
| VAPOR DENSITY *(AIR = 1)*            | >1.0   |
| EVAPORATION RATE                      | Slower |
| SOLUBILITY IN WATER                   | Complete |
| pH *(as is)*                          | 8 – 9  |
| APPEARANCE/ODOR                       | Clear liquid; little or no odor |
| VOC’S                                 | 0%     |

### SECTION 10: REACTIVITY DATA

| STABILITY:                          | Stable |
| CONDITIONS TO AVOID...             | High heat |
| INCOMPATIBLE MATERIALS:             | Oxidizers, reducers, heat, alkalies, acids, disinfectants, bleach and amines. Do NOT mix with acids and/or strong oxidizers. This product contains nitrite salts – do NOT mix with amines or substances containing amines. |
| DECOMPOSITION OR BYPRODUCTS:       | Oxides of Carbon and Nitrogen. |
| HAZARDOUS POLYMERIZATION:          | Will not occur |
| CONDITIONS TO AVOID...             | None known |

### SECTION 11: TOXICOLOGICAL INFORMATION

| EYE:                                  | No information available |
| INHALATION:                           | No information available |
| SKIN:                                 | No information available |
| INGESTION:                            | No information available |
| SUBCHRONIC:                           | No information available |
| TERATOLOGY:                           | Not a teratogen |
| CHRONIC/CARCINOGENICITY:             | Not classified as a carcinogen |
| REPRODUCTION:                         | Fetal toxicity has been demonstrated in pregnant animals fed toxic doses of Sodium Nitrite. This is due to the formation of Methemoglobin. |
| MUTAGENICITY:                         | No information available |

### SECTION 12: ECOLOGICAL INFORMATION

| ECOTOXICOLOGICAL INFORMATION:        | No information available |
| CHEMICAL FATE INFORMATION:           | No information available |

### SECTION 13: DISPOSAL INFORMATION

WASTE DISPOSAL METHOD... Package, store, transport and dispose of all product waste according to all applicable federal, state and local regulations. If solution is allowed to dry out, the Sodium Nitrate may act as an oxidizer. Dispose empty containers in accordance with applicable regulations.
### SECTION 14: TRANSPORT INFORMATION

**REGULATED FOR SHIPPING?**  YES ☐ NO ☑

Do changes in quantity, packaging or shipment method change product classification?  
YES ☐ NO ☑

**PROPER SHIPPING NAME:** UN3219, Nitrites, Inorganic, Aqueous Solution, N.O.S., 5.1, (Contains Sodium Nitrite)  
Regulated as a “Limited Quantity” under 1.3 gallons.

**IDENTIFICATION No.:** UN3219  
**PACKING GROUP:** PG III

**OTHER:** ER GUIDE No.: 140  
**HAZARD CLASS:** 5.1

### SECTION 15: REGULATORY INFORMATION

**U.S. FEDERAL REGULATIONS**  
Occupational Safety and Health Administration (OSHA)  
29 CFR 1910.1200  
OSHA: HAZCOM Standard

**CERCLA:**  
SARA Hazard Category: Immediate, Fire, Reactivity  
SARA 313

**STATE REGULATIONS**  
No information available

**VOLATILE ORGANIC COMPOUNDS**  
No information available

**INTERNATIONAL REGULATIONS**

**CANADIAN WHMIS:**  
Class C, Class D-1B, Class D-2B

**CEPA:**  
CANADIAN ENVIRONMENTAL PROTECTION ACT  
No information available

**EINECS:**  
No information available

### SECTION 16: ADDITIONAL INFORMATION

**HMIS RATING**

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<th>Category</th>
<th>Rating</th>
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<tbody>
<tr>
<td>Health</td>
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</tr>
<tr>
<td>Flammability</td>
<td>0</td>
</tr>
<tr>
<td>Reactivity</td>
<td>0</td>
</tr>
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<td>Personal protection</td>
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