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BARNACLEX™
Safety Data Sheet

1. IDENTIFICATION

Product Name: BARNACLEX
Product Numbers: 49004, 49005, 49001
Product Type and Use: Barnacle remover
Manufacturer: Corrosion Technologies

2638 National Drive, Garland, TX 75041

Contact: Telephone: 972-271-7361 Fax: 972-278-9721

Emergency Telephone: CHEMTREC® USA (800) 424-9300 Outside US +1 (703) 527-3887

2. HAZARDS IDENTIFICATION

Hazard Classification

Health Hazard(s)

Skin Irritation Category 1C
Eye Irritation Category 1
Acute Toxicity, Inhalation
Acute Toxicity - Oral Category 4

Physical Hazard(s)

Corrosive to metals Category 1

Hazard(s) not otherwise classified

None

Labeling

Signal Word: DANGER Pictograms: Corrosion



Statements of Hazard Hazard Statements

Causes severe skin burns and serious eye damage

Harmful if inhaled or swallowed May be corrosive to metals

Precautionary Statements

Wear protective gloves, eye and face protection. Do not breathe mist or vapors. Use only outdoors or in a well-ventilated area. Wash thoroughly after handling. Take off immediately all contaminated clothing and wash it before reuse. Do not eat, drink or smoke when using this product. Store locked up. Keep only in original container. Absorb spillage to prevent material damage. Store in corrosive resistant container with resistant inner liner. Dispose of contents and container in accordance with applicable regulations.

If on skin (or hair): Rinse skin with water or shower. Immediately call a poison center or doctor.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor.

If inhaled: Remove person to fresh air and keep comfortable for breathing. Immediately call a poison center or doctor.

If swallowed: Rinse mouth. Do NOT induce vomiting. Immediately call a poison center or doctor.

3. COMPOSITION / INFORMATION ON INGREDIENTS

| Chemical Name | CAS Number | Percent by Wt. | |
|--------------------|------------|----------------|--|
| Glycolic acid | 79-14-1 | 5-10* | |
| Sulfamic acid | 5329-14-6 | 1-5* | |
| Urea Hydrochloride | 506-89-8 | 5-10* | |

^{*} Exact percentage of composition has been withheld as a trade secret

4. FIRST AID MEASURES

General Advice: Causes severe skin burns and serious eye damage. Avoid contact. Avoid breathing vapors or mist. Use with adequate ventilation. Keep container closed.

Inhalation: Remove person to fresh air and keep comfortable for breathing. Immediately call a poison center or doctor.

Skin Contact: Remove contaminated clothing. Flush skin with plenty of water. Remove contaminated clothing and wash before reuse. Immediately call a poison center or doctor.

Eye Contact: Immediately flush cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor.

Ingestion: Do not give anything by mouth to an unconscious person. Do not induce vomiting unless advised to do so by a doctor or poison control center. Rinse mouth. Immediately call a poison center or doctor.

5. FIRE FIGHTING MEASURES

Extinguishing Media: Product does not support combustion. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Suitable: Carbon Dioxide, Dry Chemical, and Foam **Unsuitable**: Alcohol, Alcohol based solutions

Fire Fighting Procedures: As in any fire, wear self-contained breathing apparatus, pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Cool fire-exposed containers with water spray.

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Unusual Fire and Explosion Hazards: At temperatures above 140°F / 60°C, acid action on aluminum, tin, lead and zinc may release hydrogen, an explosive gas.

Hazardous Combustion/ Decomposition Products: Thermal decomposition can lead to release of toxic and irritating hydrogen chloride. Oxides of carbon, nitrogen and sulfur.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions / Protective Equipment / Emergency Procedures: Use caution as spills may be slippery. Ensure adequate ventilation. Use personal protective equipment.

Methods and materials for containment and cleaning up: Dike and contain large spills with inert absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer liquid to plastic containers. Flush surfaces with plenty of water to sanitary sewer system (If permitted by local sewer regulations). Do not store or dispense into metal containers. Use clean non-sparking tools to collect absorbed material and transfer to a properly labeled container for recovery or disposal according to applicable regulations.

7. HANDLING AND STORAGE

HANDLING

Precautions for Safe Handling: Avoid skin and eye contact. Do not breathe mist or vapors. Use with adequate ventilation. Follow all SDS/label precautions.

STORAGE

Conditions to avoid: Store in a cool, dry, well-ventilated place in the original container. Do not transfer or store in metal containers. Keep container tightly closed when not in use. Avoid excess heating and high temperatures. Freezing will affect the physical condition but will not damage the material. Thaw and mix before using.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

E EXPOSURE LIMITS

The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

| | ACGIH | OSHA | | NIOSH | | | |
|-------------------|-------|----------|-----|-------|------|----------|--|
| Component | TLV | TLV | PEL | PEL | IDLH | STEL | |
| | ppm | mg/m3 | ppm | mg/m3 | ppm | mg/m3 | |
| Hydrochloric Acid | 2 | Not Est. | 5 | 7 | 50 | Not Est. | |

Engineering Controls: Use with local exhaust ventilation. Ensure adequate ventilation, especially in confined areas.

Personal Protection

Respiratory Protection: None required under normal use conditions. In case of insufficient ventilation, wear a suitable NIOSH approved air purifying respirator with acid vapor cartridge.

Hand / Skin Protection: Wear impermeable gloves such as neoprene or nitrile rubber gloves. Gauntlets and apron may be worn depending on the extent of exposure.

Eye / Face Protection: Face shield with safety glasses with side-shields.

General Hygiene Measures: Avoid contact. Always wash hands and face before eating, drinking or smoking. Remove and wash contaminated clothing before re-use. An eyewash station and washing facilities should be readily accessible to the area of use. See 29 CFR 1910.132-138 for further guidance.

9. PHYSICAL AND CHEMICAL PROPERTIES

| Appearance: | Transparent | Autoignition Temperature: | Not applicable |
|-------------------------------|--------------------|-----------------------------|-----------------|
| Physical State: | Non-viscous liquid | Volatile by volume (%): | >78 |
| Odor: | None | Vapor Density (Air=1): | 1 |
| Color: | Orange | Evaporation Rate (BuAc= 1): | <1 |
| Viscosity, cSt @ 40°C: | Not established | Vapor Pressure, mmHg @23°C: | 18 |
| cSt @ 100°C: | Not established | Solubility in water: | Complete |
| pH: | <1 | Octanol/Water Partition: | Not established |
| Boiling Point/ Range: | >200°F / 93°C | VOC Content (%): | 0 |
| Melting Point: | >32°F / 0°C | Specific Gravity @15.6°C: | 1.07 |
| Flash Point: | Non-flammable | Pour Point: | Not established |
| Method: | Not applicable | Non-volatile by Volume (%): | <22 |
| Lower Explosive Limit, vol %: | Hydrogen, 4 | Dielectric Strength: | Not applicable |
| Upper Explosive Limit, vol %: | Hydrogen, 75 | _ | |

10. STABILITY AND REACTIVITY

Stability: Stable at ambient temperatures and up to 230°F/110°C.

Conditions to Avoid: Direct sunlight. Heating above 230°F/110°C results in an exothermic decomposition with rapid release of carbon dioxide gas.

Hazardous Polymerization: Will not occur.

Materials to Avoid: Strong bases/alkali, strong oxidizing agents, reducing agents, magnesium, aluminum and other reactive metals, rubber, leather, chlorate, nitrates, sulfides, sulfites and hypochlorites (chlorine bleach).

11. TOXICOLOGICAL INFORMATION

Product Information: Not established

Ingredient Information

Glycolic acid: Orl-Rat LD50 1950 mg/kg, Skn-Rbt OECD Test Guideline 404 - Corrosive, Ihl-Rat LC50 3.6 mg/L 4 hr, Eye-Rbt OECD Test Guideline 405 - severe eye irritation

Sulfamic acid: Orl-Rat LD50 - 3,160 mg/kg, Skn-Rbt OECD Test Guideline 404 - moderate skin irritation, Eye-Rbt OECD Test

Guideline 405 - Moderate eye irritation Urea Hydrochloride: Orl-rat LD50 - 1121 mg/kg

Hydrochloric acid: Orl-Rat LD50 700 mg/kg, Skn-Rbt LD50 > 5010 mg/kg, Ihl-Rat LC50 3124 ppm 1 h

Acute Effects

Signs and Symptoms of Overexposure: Skin burns and serious eye damage, Coughing, Sneezing

Inhalation: Vapors and mist may cause severe respiratory burns with nasal discomfort and discharge, coughing and sneezing, difficult breathing and shortness of breath.

Skin Contact: Causes redness, blistering, pain and burns.

Eye Contact: Causes tearing, redness, pain, swelling of the conjunctiva and burns. May cause blindness. **Ingestion:** Causes burns to the esophagus and stomach with pain, nausea, vomiting and diarrhea. May be fatal.

Primary Route(s) of Exposure: Eyes, Skin, Inhalation Primary Route(s) of Entry: Inhalation, Ingestion

Target Organs: Skin, eyes, lungs

Chronic Effects

Glycolic acid - reproductive toxicity - effects on fetus: specific developmental abnormalities: musculoskeletal system.

Carcinogenicity: Not established

Medical Conditions Aggravated by Exposure: May aggravate existing skin, eye and respiratory conditions including asthma and

dermatitis.

12. ECOLOGICAL INFORMATION

Product Data: Not established

Ingredient Data

Glycolic acid: Toxicity to Fish LC50 - Danio rerio (zebra fish) - 5,000 mg/l - 96 h

Sulfamic acid: Toxicity to Fish LC50 - Pimephales promelas (fathead minnow) - 70.3 mg/l - 96 h

Urea Hydrochloride: Toxicity to Fish LC50 >140 mg/L (rainbow trout) 96 hour, LC50 71.1 mg/L (Ceriodaphnia dubia) 48 hour, 15 minute IC50, 16.23% effect at a concentration of 10 mg/L (Vibrio fischeri, 4H6002), EC50 70-100 mg/kg (Daphnia magna)

Elimination Information

Persistence and degradability: Not biodegradable. Hydrochloric acid will be neutralized to chloride by alkalinity present in natural environment

Mobility in soil: The acid will permeate soil, dissolving some soil material and will then neutralize.

13. DISPOSAL CONSIDERATIONS

Product: Dispose of in accordance with applicable regulations.

Container: Empty remaining contents. Empty containers should be taken for local recycling, recovery or waste disposal.

14. TRANSPORT INFORMATION

Road Transport

Proper Shipping Name: Corrosive Liquid, Acidic, Organic, N.O.S. (Urea Hydrochloride)

UN number: UN3265

Class: 8

Packing Group: PG III

Air Transport

Proper Shipping Name: Corrosive Liquid, Acidic, Organic, N.O.S. (Urea Hydrochloride)

UN number: UN3265

Class: 8

Packing Group: PG III

Ocean Transport

Proper Shipping Name: Corrosive Liquid, Acidic, Organic, N.O.S. (Urea Hydrochloride)

UN number: UN3265

Class: 8

Packing Group: PG III

15. REGULATORY INFORMATION

U.S. Federal Regulations

Toxic Substances Control Act (TSCA): All components are included on the Inventory

Superfund Amendments and Reauthorization Act (SARA) Title III:

| Immediate | Delayed | Fire | Pressure | Reactivity |
|-----------|---------|--------|----------|------------|
| Hazard | Hazard | Hazard | Hazard | Hazard |
| Yes | No | No | No | No |

CA Prop. 65 Components: This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION

Prepared by: Corrosion Technologies, Technical Services Department Revision Date: 3/5/2020 Supersedes Date: N/A

Revision Indicator: v 1.0

National Fire Protection Association (704)

Health: 3 Flammability: 1 Reactivity: 0 Other: -

The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results and assume no liability for damage incurred by use of this material. All chemicals may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist. Final determination of suitability of the chemical and application of such products is the sole responsibility of the user. No representations or warranties, either expressed or implied, of merchantability, fitness for a particular purpose or any other nature are made hereunder with respect to the information contained herein or the chemical to which the information refers. It is the sole responsibility of the user to comply with all applicable Federal, State and Local Laws and Regulations. Any questions with regards to information contained herein should be referred to: U. S. Corrosion Technologies (972) 271-7361.

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