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Material Safety Data Sheet

1. PRODUCT IDENTIFICATION

Product Name: HEAVY DUTY ALUMINUM RADIATOR FLUSH 22 FL.OZ.
Item No: 80032
Product Type: Cleaner

2. COMPOSITION/INFORMATION ON INGREDIENTS

Component	Weight%	ACGIH; TLV-TWA	OSHA PEL:
CITRIC ACID 77-92-9	10-30	Not listed	Not Listed
TETRASODIUM EDTA 64-02-8	5-15	Not listed	Not Listed
N-METHYL-2-PYRROLIDONE 872-50-4	<5	Not listed	Not Listed
2-BUTOXYETHANOL 111-76-2	<5	20 ppm	25 ppm TWA; 240 mg/m ³ TWA
POTASSIUM HYDROXIDE 1310-58-3	<5	2 mg/m ³	Not Listed
DODECYLBENZENE SULFONIC ACID 27176-87-0	<5	Not listed	Not Listed

3. HAZARDS IDENTIFICATION

Toxicity: Harmful if swallowed. Causes burning sensation of the mouth, throat, and stomach. Contact with eyes may cause irritation, burns and risk of eye damage. Severe irritation or burns, necrosis, blistering and permanent injury. Excessive inhalation causes headache, dizziness, nausea, and incoordination.

Primary Routes of Entry: Eye and skin contact, ingestion, inhalation

Signs and Symptoms of Exposure: May cause pain, redness or swelling of the eyes and excessive blinking and tear production. Skin redness. Excessive exposure may cause headache, nausea, vomiting and weakness. May cause inflammation of mucous membranes and irritation.

Component	Weight%	NTP	ACGIH Carcinogens	IARC
2-BUTOXYETHANOL 111-76-2	<5	male rat-no evidence; female rat-equivocal evidence; male mice- some evidence; female mice-some evidence	A3	Group 3; Monograph 88, 2006

Medical Conditions Recognized as Being Aggravated by Exposure: None known.

4. FIRST AID MEASURES

Ingestion: If swallowed, DO NOT induce vomiting. Drink water or milk. Seek medical attention immediately. Never give fluids or induce vomiting if the victim is unconscious or having convulsions.

Inhalation: If inhaled, remove to fresh air. If not breathing give artificial respiration, preferably mouth-to-mouth. If breathing is difficult give oxygen. Get medical attention..

Skin Contact: In case of contact, immediately flush skin with plenty of soap and water for at least 15 minutes. Get medical attention. Remove contaminated clothing and launder before reuse.

Eye Contact: Flush eyes with clean water for at least 20 minutes while gently holding eyelids open, lifting upper and lower lids.

5. FIRE FIGHTING MEASURES

Flash Point °F(C°): None

Recommended Extinguishing Media: Water fog, carbon dioxide, foam, dry chemical.

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5. FIRE FIGHTING MEASURES

Special Fire-Fighting Procedures:

Firefighters should wear self-contained breathing apparatus. Water spray may be ineffective on flames but should be used to keep fire-exposed containers cool.

Hazardous Products of Combustion:

Oxides of carbon

Unusual Fire/Explosion Hazards:

None.

Lower Explosive Limit:

Not determined.

Upper Explosive Limit:

Not determined.

6. ACCIDENTAL RELEASE MEASURES

Spill Procedures:

Eliminate all sources of ignition. Neutralize with alkaline material such as soda ash or lime. Maintain good ventilation. Take up with an inert absorbent. Store in a closed waste container until disposal. Prevent from entering waterways or sewers. Wear appropriate protective and respiratory equipment.

7. HANDLING AND STORAGE

Storage:

Store in a cool, dry area. Keep containers closed when not in use.

Handling:

Avoid contact with skin and eyes. Avoid breathing vapors, if exposed to high vapor concentration, leave area at once. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eyes:

Chemical goggles; also wear a face shield if splashing hazard exists.

Skin:

Heavy rubber gloves needed.

Ventilation:

General; local exhaust ventilation as necessary to control any air contaminants to within their exposure limits (or to the lowest feasible levels when limits have not been established) during the use of this product.

Respiratory Protection:

An approved organic vapor respirator should be worn when exposures are expected to exceed the applicable limits.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:

Yellow liquid

Odor:

MILD

Boiling Point:

>200°F

pH:

4.5-6.0

Solubility in Water:

SOLUBLE

Specific Gravity:

1.09

VOC Content(Wt.%):

4.2%

Vapor Pressure:

Not Determined

Vapor Density (Air=1):

>1 (air = 1)

Evaporation Rate:

Slower than ether

10. STABILITY AND REACTIVITY

Chemical Stability:

Stable at normal conditions

Hazardous Polymerization:

WILL NOT OCCUR.

Incompatibilities:

Active metals, Strong oxidizers, Strong alkalis

Conditions to Avoid:

Heat

Hazardous Products of Combustion:

Oxides of carbon

11. TOXICOLOGICAL INFORMATION

See Section 3

12. ECOLOGICAL INFORMATION

No data available

13. DISPOSAL CONSIDERATIONS

Recommended Method of Disposal: Dispose of in accordance with local, state and federal regulations.

US EPA Waste Number: NH - Not a RCRA Hazardous Waste Material

14. TRANSPORTATION INFORMATION

DOT (49CFR 172)

Domestic Ground Transport

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14. TRANSPORTATION INFORMATION

DOT Shipping Name: Unrestricted
Hazard Class: None
UN/ID Number: None

IATA

Proper Shipping Name: Unrestricted
Class or Division: None
UN/ID Number: None

IMDG

Proper Shipping: Unrestricted
Hazard Class: None
UN Number: None

Marine Pollutant: None

15. REGULATORY INFORMATION

SARA 313 Chemicals: The following component(s) is listed as a SARA Section 313 Toxic Chemical.

2-Butoxyethanol, N-Methyl-2-pyrrolidone

CALIFORNIA PROP 65:

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm

TSCA Inventory Status:

Listed on Inventory: YES All components of this product are listed (or exempt) on the EPA TSCA inventory.

16. OTHER INFORMATION

Estimated NFPA Rating: HEALTH 2, FLAMMABILITY 0, REACTIVITY 0.

Estimated HMIS Classification: HEALTH 2, FLAMMABILITY 0, PHYSICAL HAZARD 0

NFPA is a registered trademark of the National Fire Protection Assn.

HMIS is a registered trademark of the National Paint and Coatings Assn.

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