ITW Permatex
10 Columbus Blvd.
Hartford, CT 06106 USA
Telephone: 1-87-Permatex
(877) 376-2839
Emergency: 800-255-3924 (ChemTel)
International Emergency: +01-813-248-0585

Material Safety Data Sheet

1. PRODUCT IDENTIFICATION

Product Name: **18E HEAVY DUTY RADIATOR CLEANER 32 FO BO**
Item No: **80030**
Product Type: **Cleaner**

2. COMPOSITION/INFORMATION ON INGREDIENTS

Component	Weight%	ACGIH; TLV-TWA	OSHA PEL
WATER 7732-18-5	40-80	Not listed	Not listed
HYDROCHLORIC ACID 7647-01-0	10-40	Not listed	Not listed

3. HAZARDS IDENTIFICATION

Toxicity: Extremely corrosive to eyes and skin. Extremely corrosive by ingestion. Ingesting large quantities can cause severe pain, nausea and even death. Inhaling high concentrations may be dangerous.

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

Signs and Symptoms of Exposure: Can cause severe and painful burns on contact to eyes, skin and if taken internally.

Component	Weight%	NTP	ACGIH Carcinogens	IARC Carcinogen
HYDROCHLORIC ACID 7647-01-0	10-40			Group 3 Vol 54; 1992

Aggravated Medical Condition: 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. Get immediate medical attention.

5. FIRE FIGHTING MEASURES

Flash Point °F(C°): None

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

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: Flammable hydrogen gas

Unusual Fire/Explosion Hazards: Extinguish all nearby sources of ignition since flammable hydrocarbon gas will be liberated from contact with some metals (aluminum, magnesium and others).

Lower Explosive Limit: Not determined.

Upper Explosive Limit: Not determined.

6. ACCIDENTAL RELEASE MEASURES

Spill Procedures: Eliminate all sources of ignition. 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.
Handling: Avoid contact with skin and eyes. Do not take internally. Avoid breathing vapors, if exposed to high vapor concentration, leave area at once. Wash hands before eating and smoking.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eyes: Chemical goggles; also wear a face shield if splashing hazard exists.
Skin: Heavy rubber gloves needed.
Ventilation: Sufficient mechanical ventilation to maintain exposures below the TLV, but general mechanical ventilation is not recommended as the sole means of controlling exposure. Make up air should always be supplied to balance air exhausted.
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: Green liquid
Odor: Pungent odor.
Boiling Point: >200°F
pH: Unknown
Solubility in Water: SOLUBLE
Specific Gravity: 1.10
VOC(Wt.%): 0
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
Incompatabilities: Active metals, Caustic materials such as lime, soda ash, caustic soda, strong alkali, oxidizing or reducing materials.
Conditions to Avoid: Contact with certain metals produces hydrogen gas.
Hazardous Products of Combustion: Flammable hydrogen gas

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: D002 as per 40CFR 261.22

14. TRANSPORTATION INFORMATION

DOT (49CFR 172)

U.S. Department of Transportation - DOT - 49 CFR (Ground)

DOT Shipping Name: Hydrochloric acid solution, Limited Quantity
Hazard Class: Class 8, PGII
UN/ID Number: UN 1789

IATA (Air)

Proper Shipping Name: Do Not Ship
Class or Division: Not applicable
UN/ID Number: Not applicable

IMDG (Vessel)

Proper Shipping Name: Do Not Ship
Hazard Class: Not applicable
UN Number: Not applicable

Marine Pollutant: None

15. REGULATORY INFORMATION

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

HYDROGEN CHLORIDE

California Proposition 65: WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm

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

16. OTHER INFORMATION

Estimated NFPA Rating: HEALTH 3, FLAMMABILITY 0 , REACTIVITY 1.
Estimated HMIS Classification: HEALTH 3, FLAMMABILITY 0, PHYSICAL HAZARD 0
(NFPA is a registered trademark of the National Fire Protection Association)
HMIS is a registered trademark of the National Paint and Coatings Association

Prepared By: Denise Boyd, Manager-Environmental, Health & Safety
Company: ITW Permatex 10 Columbus Blvd. Hartford, CT USA 06106
Telephone No.: 1-87-Permatex (877) 376-2839

Revision Date: January 27, 2012
Revision Number: 5