

MATERIAL SAFETY DATA SHEET

SECTION 1 CHEMICAL PRODUCT AND COMPANY INFORMATION

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|--|---------------|--------------|
| Product Name: Power-Pac Refrigeration Condenser Cleaner (Aerosol) | Date Prepared | May 15, 2009 |
| Product Number(s): A-4101 | Replaces | Mar 19, 2001 |
| Product Use: Metal degreasing | | |
| Company Name: North American Research Corporation P.O. Box 1318 Lewisville, TX 75067 | | |
| Telephone Numbers: (972) 492-1800, (800) 527-7520, Fax (972) 394-6755 | | |
| Emergencies: Infotrac (800) 535-5053 (24 hours, everyday) | | |

SECTION 2 COMPOSITION / INFORMATION ON INGREDIENTS

OSHA Hazardous Components (29 CFR 1910.1200):

| | <u>CAS Registry No.</u> | <u>OSHA PEL</u> | <u>ACGIH TLV</u> | <u>Other Limits</u> | <u>% (Optional)</u> |
|-------------------|-----------------------------|-----------------|------------------|---------------------|-------------------------|
| Trichloroethylene | 79-01-6 | 50 ppm | 50 ppm | NE | >95 |
| Carbon Dioxide | 124-38-9 | 10,000 ppm | 5,000 ppm | NE | 1-5 |

SECTION 3 HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

A dense, nonflammable, colorless, clear liquid; irritating odor at high concentrations
WARNING! Harmful if inhaled. Can cause skin and eye irritation. Contents under pressure.

POTENTIAL HEALTH EFFECTS

INHALATION: Headaches, dizziness, anesthesia, and unconsciousness.

SKIN: Irritation

EYE: Irritation

INGESTION: Trichloroethylene can be aspirated into the lungs, which can cause chemical pneumonia and systemic effects. Ingestion can cause adverse health effects as described in the **INHALATION** section above.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Exposure to high levels of vapor (8000+ ppm) may cause cardiac arrhythmias.

CHRONIC EFFECTS: Repeated overexposure may cause liver and kidney effects and dermatitis.

CARCINOGENICITY: OSHA: No IARC: Yes NTP: No

SECTION 4 FIRST AID MEASURES

INHALATION: Remove to fresh air. If breathing has stopped, administer artificial respiration. Contact physician or emergency medical facility immediately.

SKIN: Remove contaminated clothing and shoes. Wash contact area with soap and water for at least 15 minutes. Get prompt medical attention. Wash clothing before reuse.

EYES: Immediately flush eyes with large amounts of water for at least 15 minutes while frequently lifting the upper and lower eyelids. If irritation persists, call a physician.

INGESTION: DO NOT induce vomiting. Contact a physician or emergency medical facility immediately. Never give anything by mouth to an unconscious person.

SECTION 5 FIRE-FIGHTING MEASURES

FLASHPOINT: None **METHOD:** TCC **FLAMMABLE LIMITS:** Not determined

AUTOIGNITION TEMP: Not determined

EXTINGUISHING MEDIA: Nonflammable, use agent suitable for surrounding fire.

HAZARDOUS COMBUSTION PRODUCTS: Thermal — Hydrogen chloride, phosgene, chlorine.

FIRE FIGHTING INSTRUCTIONS

Approach fire from upwind to avoid hazardous vapors and toxic decomposition products. Use flooding quantities of water as fog or spray to keep fire-exposed containers cool. Aerosol cans may explode if heated above 120°F.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Spill/Leak Procedures: Usually not a problem with aerosols. Area should be ventilated. Use absorbent to pick up excess material. All used and unused product should be disposed of in accordance with federal, state, and local regulations.

SECTION 7 STORAGE AND HANDLING

STORAGE CONDITIONS:

Store in labeled, original containers in a cool, dry, well-ventilated area. Replace aerosol over-cap when not in use. Do not remove or deface label. Keep aerosol cans below 120°F to avoid bursting.

HANDLING PROCEDURES:

Avoid contact with skin and avoid breathing vapors. Do not eat, drink, or smoke in work area. Wash hands before eating, drinking, or using the restroom. Any clothing or shoes which become contaminated should be removed immediately and thoroughly washed before wearing again. Do not use in poorly ventilated or confined spaces. Vapors are heavier than air and will collect in low areas.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMITS: See section 2.

RESPIRATORY PROTECTION: Wear NIOSH/MSHA approved respirator where exposure limits may be exceeded. Follow OSHA regulations 29 CFR 1910.134.

EYE PROTECTION: Wear safety glasses, chemical splash goggles, and/or face shield (ANSI Z87.1 or approved equivalent).

HAND PROTECTION: Wear solvent resistant gloves such as Viton, polyvinyl alcohol, or equivalent.

OTHER PROTECTION: Use chemically resistant apron or other impervious clothing to avoid skin contact.

ENGINEERING CONTROLS (Ventilation): Use in a well ventilated area equivalent to outdoors. Do not use in confined spaces. Local, mechanical exhaust may be necessary to maintain levels below exposure limits.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Colorless, clear liquid; irritating odor at high concentrations.

SPECIFIC GRAVITY: 1.45 @ 25/25°C

VAPOR PRESSURE: 58 mm Hg @ 20°C/68°F

VAPOR DENSITY: 4.5 (Air = 1)

SOLUBILITY IN WATER: 0.1 gm/100 gm @ 25°C

pH: Not applicable

BOILING POINT: 188°F (86.7°C)

EVAPORATION RATE (Butyl Acetate = 1): <1 (fast)

VOLATILES, % BY VOLUME: 100

SECTION 10 STABILITY AND REACTIVITY

STABILITY: Stable

CONDITIONS TO AVOID: Ignition sources (sparks, open flame, heated surfaces).

INCOMPATIBILITY (Materials to Avoid): Strong oxidizers. Avoid storing in aluminum containers or contact with aluminum powder or zinc powder.

HAZARDOUS POLYMERIZATION: Will not occur.

HAZARDOUS DECOMPOSITION PRODUCTS: Hydrogen chloride, phosgene, chlorine.

SECTION 11 TOXICOLOGICAL INFORMATION

Long-term toxicological studies have not been conducted for this product. See SECTION 3 of this MSDS for acute symptoms of overexposure and carcinogenicity information.

SECTION 12 ECOLOGICAL INFORMATION

No data available.

SECTION 13 DISPOSAL CONSIDERATIONS

This material, if discarded, may be a hazardous waste under U.S. EPA RCRA regulations. All disposal activities must comply with federal, state, and local regulations. Contact your local state environmental agency for specific rules. Do not dump into sewers, on the ground, or into any body of water.

SECTION 14 TRANSPORT INFORMATION

U.S. Department of Transportation:

Consumer Commodity, ORM-D

SECTION 15 REGULATORY INFORMATION

TSCA: All components of this product are listed or are excluded from listing on the U.S. Toxic Substances Control Act (TSCA) Chemical Substances Inventory.

CERCLA: Trichloroethylene (79-01-6); RQ 100 lbs.

SARA TITLE III:

Section 311/312 Hazard Category: Acute: Yes Chronic: Yes Fire: No Pressure: No Reactive Hazard: No

Section 313 Reportable Ingredients: Trichloroethylene (79-01-6)

CALIFORNIA (Proposition 65):

The State of California has listed Trichloroethylene under Prop 65 as a chemical known to the state to cause cancer.

SECTION 16 OTHER INFORMATION

NFPA RATING: Health – 2, Flammability – 1, Reactivity – 0

HMIS® RATING: Health – 2, Flammability – 1, Reactivity – 0

HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint and Coatings Association (NPCA).

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