

# MATERIAL SAFETY DATA SHEET

Misty Contact & Circuit Board Cleaner III

## Section 1: PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Misty Contact & Circuit Board Cleaner III  
**Product Number:** A00368  
**Product Use:** Specialty Cleaner.  
**Manufacturer/Supplier:** Amrep, Inc.  
990 Industrial Park Drive  
Marietta, GA 30062  
**Phone Number:** (770) 422-2071 (Mon - Fri / 8am - 5pm ET)  
**D.O.T. Emergency Phone:** CHEM TEL (800) 255-3924  
INTERNATIONAL: +01-813-248-0584  
**Date of Preparation:** October 5, 2007      **Revision #:** 1.0

## Section 2: HAZARDS IDENTIFICATION

### EMERGENCY OVERVIEW

**HMIS:** See Section 15

DANGER

EXTREMELY FLAMMABLE. HARMFUL BY INHALATION.  
MAY CAUSE EYE IRRITATION. MAY CAUSE SKIN IRRITATION.  
CONTENTS UNDER PRESSURE. CONTAINER MAY EXPLODE IF HEATED.

**Potential Health Effects:** See Section 11 for more information.

**Likely Routes of Exposure:** Skin contact, eye contact, inhalation, and ingestion.

**Eye:** May cause eye irritation.  
**Skin:** May cause skin irritation.  
**Ingestion:** Not a normal route of exposure. Harmful: may cause lung damage if swallowed.  
**Inhalation:** Harmful by inhalation. May cause respiratory tract irritation. This product may be aspirated into the lungs and cause chemical pneumonitis.

**Chronic Effects:** Prolonged or repeated contact may dry skin and cause irritation.

**Signs and Symptoms:** Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling. Symptoms may include redness and drying of the skin. Vapours may cause drowsiness and dizziness.

**Medical Conditions Aggravated By Exposure:** Asthma. Allergies.

**Target Organs:** Skin, eyes, gastrointestinal tract, respiratory system.

**Potential Environmental Effects:** May cause long-term adverse effects in the aquatic environment. See Section 12 for more information.

## Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient	CAS #	Wt. %
Heptane	142-82-5	40 - 70
2-Methylpentane	107-83-5	7 - 13
Isopropanol	67-63-0	7 - 13
Carbon dioxide	124-38-9	1 - 5
3-Methylpentane	96-14-0	1 - 5
2,3-Dimethylbutane	79-29-8	1 - 5
Neohexane	75-83-2	1 - 5

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## Section 4: FIRST AID MEASURES

**Eye Contact:** In case of contact, immediately flush eyes with plenty of water. If easy to do, remove contact lenses, if worn.

**Skin Contact:** In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Call a physician if irritation develops and persists.

**Inhalation:** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

**Ingestion:** If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

**General Advice:** In case of accident or if you feel unwell, seek medical advice immediately (show the label or MSDS where possible).

**Note to Physicians:** Symptoms may not appear immediately.

## Section 5: FIRE FIGHTING MEASURES

**Flammability:** Flammable by WHMIS/OSHA criteria.

**Means of Extinction:**

**Suitable Extinguishing Media:** Treat for surrounding material.

**Unsuitable Extinguishing Media:** Not available.

**Products of Combustion:** May include, and are not limited to: oxides of carbon.

**Explosion Data:**

**Sensitivity to Mechanical Impact:** Not available.

**Sensitivity to Static Discharge:** Not available.

**Protection of Firefighters:** Containers may explode when heated. Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

## Section 6: ACCIDENTAL RELEASE MEASURES

**Personal Precautions:** Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Eliminate sources of ignition. Ruptured cylinders may rocket.

**Environmental Precautions:** Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks). This material is a water pollutant. Keep out of drains, sewers, ditches, and waterways. Minimize use of water to prevent environmental contamination.

**Methods for Containment:** Contain and/or absorb spill with inert material (e.g. sand, vermiculite), then place in a suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).

**Methods for Clean-Up:** Vacuum or sweep material and place in a disposal container. Allow gas to dissipate harmlessly into the atmosphere.

**Other Information:** Not available.

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## Section 7: HANDLING AND STORAGE

### Handling:

Keep away from sources of ignition. - No smoking. Avoid contact with skin and eyes. Do not swallow. Do not breathe gas/fumes/vapor/spray. Use only in well-ventilated areas. Handle and open container with care. When using, do not eat or drink. Wash hands before eating, drinking, or smoking.

### Storage:

Keep out of the reach of children. Keep container in a well-ventilated place. Do not store at temperatures above 49°C / 120°F. Keep away from food, drink and animal foodstuffs.

## Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

### Exposure Guidelines

Ingredient	Exposure Limits	
	OSHA-PEL	ACGIH-TLV
Heptane	400 ppm	400 ppm
2-Methylpentane	500 ppm	500 ppm
Isopropanol	400 ppm	200 ppm
Carbon dioxide	5000 ppm	5000 ppm
3-Methylpentane	500 ppm	500 ppm
2,3-Dimethylbutane	500 ppm	500 ppm
Neohexane	500 ppm	500 ppm

**Engineering Controls:** Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.

### Personal Protective Equipment:

**HMIS:** See Section 15

**Eye/Face Protection:** Wear eye/face protection.

**Hand Protection:** Wear suitable gloves.

**Skin and Body Protection:** Wear suitable protective clothing.

**Respiratory Protection:** In case of insufficient ventilation, wear suitable respiratory equipment.

**General Hygiene Considerations:** Handle according to established industrial hygiene and safety practices.

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Clear.
<b>Color:</b>	Colorless.
<b>Odour:</b>	Characteristic.
<b>Odour Threshold:</b>	Not available.
<b>Physical State:</b>	Gas/Pressurized Liquid.
<b>pH:</b>	Not applicable.
<b>Viscosity:</b>	Not available.
<b>Freezing Point:</b>	Not available.
<b>Boiling Point:</b>	Not available.
<b>Flash Point:</b>	Not available.

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<b>Evaporation Rate:</b>	Not available.
<b>Lower Flammability Limit:</b>	Not available.
<b>Upper Flammability Limit:</b>	Not available.
<b>Vapor Pressure:</b>	Not available.
<b>Vapor Density:</b>	Not available.
<b>Specific Gravity:</b>	0.695 (Concentrate only)
<b>Solubility in Water:</b>	Insoluble.
<b>Coefficient of Water/Oil Distribution:</b>	Not available.
<b>Auto-ignition Temperature:</b>	Not available.
<b>Percent Volatile, wt. %:</b>	96.3
<b>VOC content, wt. %:</b>	96.3% (US federal/CARB/OTC/LADCO)

## Section 10: STABILITY AND REACTIVITY

**Stability:** Stable under normal storage conditions. Contents under pressure. Container may explode if heated. Do not puncture. Do not burn. Keep in a cool place.

**Conditions of Reactivity:** Heat. Incompatible materials.

**Incompatible Materials:** Oxidizers.

**Hazardous Decomposition Products:** May include, and are not limited to: oxides of carbon.

**Possibility of Hazardous Reactions:** No dangerous reaction known under conditions of normal use.

## Section 11: TOXICOLOGY INFORMATION

### EFFECTS OF ACUTE EXPOSURE

#### Component Analysis

<b>Ingredient</b>	<b>LD<sub>50</sub> (oral)</b>	<b>LC<sub>50</sub></b>
Heptane	Not available.	103 g/m <sup>3</sup> 4hrs, rat
2-Methylpentane	Not available.	Not available.
Isopropanol	5045 mg/kg, rat	16970 ppm 4 hrs, rat
Carbon dioxide	Not available.	Not available.
3-Methylpentane	Not available.	Not available.
2,3-Dimethylbutane	Not available.	Not available.
Neohexane	Not available.	Not available.

**Eye:** May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.

**Skin:** May cause skin irritation. Symptoms may include redness and drying of the skin.

**Ingestion:** Not a normal route of exposure. Harmful: may cause lung damage if swallowed.

**Inhalation:** Harmful by inhalation. May cause respiratory tract irritation. This product may be aspirated into the lungs and cause chemical pneumonitis. Vapours may cause drowsiness and dizziness.

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## EFFECTS OF CHRONIC EXPOSURE

**Target Organs:** Not available.

**Chronic Effects:** Not hazardous by WHMIS/OSHA criteria.

**Carcinogenicity:** Not hazardous by WHMIS/OSHA criteria.

Ingredient	Chemical Listed as Carcinogen or Potential Carcinogen *
Heptane	Not listed.
2-Methylpentane	Not listed.
Isopropanol	G-A4
Carbon dioxide	Not listed.
3-Methylpentane	Not listed.
2,3-Dimethylbutane	Not listed.
Neohexane	Not listed.

\* See Section 15 for more information.

**Mutagenicity:** Not hazardous by WHMIS/OSHA criteria.

**Reproductive Effects:** Not hazardous by WHMIS/OSHA criteria.

**Developmental Effects:**

**Teratogenicity:** Not hazardous by WHMIS/OSHA criteria.

**Embryotoxicity:** Not hazardous by WHMIS/OSHA criteria.

**Respiratory Sensitization:** Not hazardous by WHMIS/OSHA criteria.

**Skin Sensitization:** Not hazardous by WHMIS/OSHA criteria.

**Toxicologically Synergistic Materials:** Not available.

## Section 12: ECOLOGICAL INFORMATION

**Ecotoxicity:** May cause long-term adverse effects in the aquatic environment

**Persistence / Degradability:** Not available.

**Bioaccumulation / Accumulation:** Not available.

**Mobility in Environment:** Not available.

## Section 13: DISPOSAL CONSIDERATIONS

### Disposal Instructions:

This material must be disposed of in accordance with all local, state, provincial, and federal regulations.

## Section 14: TRANSPORTATION INFORMATION

### DOT Classification

ORM-D

### TDG Classification

Limited Quantity

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## Section 15: REGULATORY INFORMATION

### Federal Regulations

**Canadian:** This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

**US:** MSDS prepared pursuant to the Hazard Communication Standard (29 CFR 1910.1200).

### SARA Title III

Ingredient	Section 302 (EHS) TPQ (lbs.)	Section 304 EHS RQ (lbs.)	CERCLA RQ (lbs.)	Section 313
Heptane	Not listed.	Not listed.	Not listed.	Not listed.
2-Methylpentane	Not listed.	Not listed.	Not listed.	Not listed.
Isopropanol	Not listed.	Not listed.	Not listed.	Yes.
Carbon dioxide	Not listed.	Not listed.	Not listed.	Not listed.
3-Methylpentane	Not listed.	Not listed.	Not listed.	Not listed.
2,3-Dimethylbutane	Not listed.	Not listed.	Not listed.	Not listed.
Neohexane	Not listed.	Not listed.	Not listed.	Not listed.

### State Regulations

#### California Proposition 65:

This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

### Global Inventories

Ingredient	Canada DSL/NDSL	USA TSCA
Heptane	DSL	Yes.
2-Methylpentane	DSL	Yes.
Isopropanol	DSL	Yes.
Carbon dioxide	DSL	Yes.
3-Methylpentane	DSL	Yes.
2,3-Dimethylbutane	DSL	Yes.
Neohexane	DSL	Yes.

### HMIS - Hazardous Materials Identification System

Health - 2

Flammability - 3

Physical Hazard - 0

PPE - B

### NFPA - National Fire Protection Association:

Health - 2

Fire - 3

Reactivity - 0

**Hazard Rating:** 0 = minimal, 1 = slight, 2 = moderate, 3 = severe, 4 = extreme

### WHMIS Classification(s):

Class A - Compressed Gas

Class B5 - Flammable Aerosol

Class D2B - Skin/Eye Irritant

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## WHMIS Hazard Symbols:



## SOURCE AGENCY CARCINOGEN CLASSIFICATIONS:

**OSHA (O)** Occupational Safety and Health Administration.

**ACGIH (G)** American Conference of Governmental Industrial Hygienists.

A1 - Confirmed human carcinogen.

A2 - Suspected human carcinogen.

A3 - Animal carcinogen.

A4 - Not classifiable as a human carcinogen.

A5 - Not suspected as a human carcinogen.

**IARC (I)** International Agency for Research on Cancer.

1 - The agent (mixture) is carcinogenic to humans.

2A - The agent (mixture) is probably carcinogenic to humans; there is limited evidence of carcinogenicity in humans and sufficient evidence of carcinogenicity in experimental animals.

2B - The agent (mixture) is possibly carcinogenic to humans; there is limited evidence of carcinogenicity in humans in the absence of sufficient evidence of carcinogenicity in experimental animals.

3 - The agent (mixture, exposure circumstance) is not classifiable as to its carcinogenicity to humans.

4 - The agent (mixture, exposure circumstance) is probably not carcinogenic to humans.

**NTP (N)** National Toxicology Program.

1 - Known to be carcinogens.

2 - Reasonably anticipated to be carcinogens.

## Section 16: OTHER INFORMATION

### Disclaimer:

We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind. The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for the user's own particular use.

**Expiry Date:** October 5, 2010

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