

MATERIAL SAFETY DATA SHEET

BRAKE AND ELECTRICAL COMPONENT CLEANER

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

TRADE NAME: BRAKE AND ELECTRICAL COMPONENT CLEANER

SYNONYMS: 4C-4079

UN/NA (PIN) No.: N/A

EMERGENCY TELEPHONE: Rocky Mountain Poison Center Denver, Colorado
(800) 458-5924 U.S. and Canada.
(303) 893-1322 Outside U.S.

SUPPLIER: Chemtool Incorporated
8200 Ridgefield Road
P.O. Box 538
Crystal Lake, IL 60039-0538

TELEPHONE: (815) 459-1250

FAX: (815) 459-1955

2. COMPOSITION, INFORMATION ON INGREDIENTS

INGREDIENT NAME:	CAS No.:	CONTENTS :	EPA RQ:	TPQ:
ETHANE, 1,1,1-TRICHLORO-	71-55-6	70-100 %	1 000 lbs	N/A
2-PROPANOL, 2-METHYL-	75-65-0	1-5 %	N/A	N/A
METHANE, DIMETHOXY-	109-87-5	1-5 %	N/A	N/A
CARBON DIOXIDE	124-38-9	1-5 %	N/A	N/A

COMPOSITION COMMENTS:

Refer to section eight for exposure limits on ingredients.
Chemical ingredients not regulated by OSHA or SARA are treated confidentially.

3. HAZARDS IDENTIFICATION

Harmful by inhalation, in contact with skin and if swallowed. Irritating to eyes, respiratory system and skin.

CHRONIC EFFECTS:

SENSITIZATION:

No known information.

CARCINOGENICITY:

IARC: Not listed. OSHA: Not regulated. NTP: Not listed.

* NTP (National Toxicology Program)

* IARC (International Agency for Research on Cancer)

* OSHA (Occupational Safety and Health Administration)

HEALTH WARNINGS:

GENERAL HEALTH HAZARDS. Inhalation is the main hazard in industrial use. INHALATION. The solvent vapors can be harmful and cause headache, nausea and intoxication. SKIN CONTACT. Irritating. Repeated or prolonged contact can result in drying of the skin. EYE CONTACT. Irritating. INGESTION. Dangerous by ingestion.

ROUTE OF ENTRY:

Inhalation. Skin and/or eye contact. Ingestion. Skin absorption.

4. FIRST AID MEASURES

- INHALATION:** Remove victim immediately from source of exposure. Move the exposed person to fresh air at once. For breathing difficulties oxygen may be necessary. If breathing stops, provide artificial respiration. Get medical attention.
- INGESTION:** DO NOT INDUCE VOMITING! Get medical attention immediately!
- SKIN:** Remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical attention if any discomfort continues.
- EYES:** Rinse the eye with water immediately. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.
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5. FIRE FIGHTING MEASURES

FLAMMABILITY LIMIT - LOWER(%): 2.4
FLAMMABILITY LIMIT - UPPER(%): 16.7

EXTINGUISHING MEDIA:

Use: Foam. Carbon dioxide (CO₂). Dry chemicals, sand, dolomite etc.

SPECIAL FIRE FIGHTING PROCEDURES:

Use water to keep fire exposed containers cool and disperse vapors. Water spray may be used to flush spills away from exposures and dilute spills to non-flammable mixtures. Keep run-off water out of sewers and water sources. Dike for water control.

UNUSUAL FIRE & EXPLOSION HAZARDS:

Volume and pressure increases strongly when heated. Risk of container explosion in fire.

HAZARDOUS COMBUSTION PRODUCTS:

Acrid smoke/fumes. Oxides of: Carbon. Hydrocarbons. Chlorine.

6. ACCIDENTAL RELEASE MEASURES

SPILL CLEAN-UP PROCEDURES:

Collect carefully in closed container. Move container and sanitize area using water.

7. HANDLING AND STORAGE

HANDLING PRECAUTIONS:

Eye wash station should be available at the work place. Keep away from heat, sparks and open flame. Ventilate well, avoid breathing vapors. Use approved respirator if air contamination is above accepted level.

STORAGE PRECAUTIONS:

Keep away from heat, sparks and open flame. Store at temperature below 122°F. Store separated from: Acids. Oxidizing materials.

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

INGREDIENT NAME:	CAS No.:	OSHA PEL:		ACGIH TLV:		OTHER:		UNITS:
		TWA:	STEL:	TWA:	STEL:	TWA:	STEL:	
ETHANE, 1,1,1-TRICHLORO-	71-55-6	350	450	350	450	N/A	N/A	ppm
2-PROPANOL, 2-METHYL-	75-65-0	100	N.E.	100	150	100	150	ppm
METHANE, DIMETHOXY-	109-87-5	1000	N.E.	1000	N.E.	N/A	N/A	ppm
CARBON DIOXIDE	124-38-9	10,000	30,000	5,000	30,000	5,000	30,000	ppm

PROTECTIVE EQUIPMENT:



ENGINEERING CONTROLS:

Use engineering controls to reduce air contamination to permissible exposure level.

VENTILATION: No specific ventilation requirements noted, but forced ventilation may still be required if air contamination exceeds acceptable level.

RESPIRATORS: No specific recommendation made, but respiratory protection may still be required under exceptional circumstances when excessive air contamination exists.

PROTECTIVE GLOVES:

Chemical resistant gloves required for prolonged or repeated contact.

EYE PROTECTION:

Wear splash-proof eye goggles to prevent any possibility of eye contact.

PROTECTIVE CLOTHING:

Wear appropriate clothing to prevent repeated or prolonged skin contact.

HYGIENIC WORK PRACTICES:

Wash at the end of each work shift and before eating, smoking and using the toilet.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE/PHYSICAL STATE:	Aerosol.	
COLOR:	Colorless.	
ODOR:	Mild (or faint). Solvent.	
SOLUBILITY DESCRIPTION:	Slightly soluble in water.	
BOILING POINT (°F, interval):	226 - 358	PRESSURE: 760mmHg
MELT./FREEZ. POINT (°F, interval):	0	
DENSITY/SPECIFIC GRAVITY (g/ml):	~1.29	TEMPERATURE (°F): 140
VAPOR DENSITY (air=1):	>1	
EVAPORATION RATE:	>0.40 (for 1,1,1-trichloroethane)	REFERENCE: BuAc=1
pH-VALUE, CONC. SOLUTION:	N/A	

10. STABILITY AND REACTIVITY

STABILITY: Normally stable.

CONDITIONS TO AVOID:

Avoid contact with acids and oxidizing substances. Avoid heat, flames and other sources of ignition.

HAZARDOUS POLYMERIZATION:

Will not polymerize.

HAZARDOUS DECOMPOSITION PRODUCTS:

Oxides of: Carbon. Chlorine. Hydrocarbons.

11. TOXICOLOGICAL INFORMATION

12. ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION:

No data on possible environmental effects have been found.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHODS:

Dispose of in accordance with Local Authority requirements.

14. TRANSPORT INFORMATION

PROPER SHIPPING DESCRIPTION I: Consumer commodity

U.S. DOT:
UN/NA No.: N/A
U.S. DOT HAZARD LABEL: No DOT label requirement noted
U.S. DOT CLASS: ORM-D (Other Regulated Material D).

SEA TRANSPORT:
UN No. SEA: UN1950
IMDG CLASS: 2
IMDG PACK GR.: N/A
EmS No.: 2-13
MFAG TABLE No.: 620
INFORMATION ON SEA TRANSPORT: Aerosols

AIR TRANSPORT:
UN No., AIR: UN1950
ICAO CLASS: 2
AIR PACK GR.: N/A
INFORMATION ON AIR TRANSPORT: Aerosols

15. REGULATORY INFORMATION

REGULATORY STATUS OF INGREDIENTS:						
NAME:	CAS No:	TSCA:	CERCLA:	SARA 302:	SARA 313:	DSL(CAN):
ETHANE, 1,1,1-TRICHLORO-	71-55-6	Yes	Yes	N/A	Yes	Yes
2-PROPANOL, 2-METHYL-	75-65-0	Yes	N/A	N/A	Yes	Yes
METHANE, DIMETHOXY-	109-87-5	Yes	N/A	N/A	N/A	Yes
CARBON DIOXIDE	124-38-9	Yes	N/A	N/A	N/A	Yes

US FEDERAL REGULATIONS:

REGULATORY STATUS:

This Product or its components, if a mixture, is subject to following regulations (Not meant to be all inclusive - selected regulations represented): TSCA: The ingredients of this product are on the TSCA Inventory. SECTION 313: This product contains toxic chemical subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR Part 372. SARA 311 Categories: 4. Sudden Release of Pressure Hazard.

STATE REGULATIONS:

STATE REGULATORY STATUS:

This product or its components, if a mixture, is subject to following regulations (Not meant to be all inclusive - selected regulations represented):. PROPOSITION 65: This product does not contain chemicals considered by the State of California's Safe Drinking Water and Toxic Enforcement Act of 1986 as causing cancer or reproductive toxicity, and for which warnings are now required.

CANADIAN REGULATIONS:

REGULATORY STATUS:

This Material Safety Data Sheet has been prepared in compliance with the Controlled Product Regulations.

16. OTHER INFORMATION

NFPA HAZARD RATING:

HEALTH:

Temporary incapacitation, injury (2)

FLAMMABILITY:

Burns only if heated moderately (2).

REACTIVITY:

N/A (0).

SPECIAL HAZARD:

N/A

NPCA HMIS HEALTH:

2 Moderate Hazard

PERS. PROTECT. INDEX:

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PREPARED BY:

Heather Holich

DATE:

March 8, 2002

DISCLAIMER:

While the information and recommendations set forth herein are believed to be accurate as of the date thereof, Chemtool Incorporated makes no warranty with respect thereto and disclaims all liability from reliance therein.