

MATERIAL SAFETY DATA SHEET

Trade Name: Johnsen's Brake Cleaner 10 oz 12/cs (Non-VOC compliant)
MSDS NO. 2418NC
Revision Date: 12/04/2008
Date Printed 12/04/2008

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Trade Name: Johnsen's Brake Cleaner 10 oz 12/cs (Non-VOC compliant)
Chemical Family: Non-Chlorinated Hydrocarbon
Synonyms: None
Emergency Telephone (24 hr.): 24-Hour Emergency Information: CHEMTREC (800) 424-9300
Supplier: Technical Chemical Company, P.O. Box 139, Cleburne, Texas 76033

2. COMPOSITION/INFORMATION ON INGREDIENTS

Component	Weight %	OSHA TWA	OSHA STEL	OSHA SKIN
Toluene 108-88-3	50-60	Not Listed	Not Listed	Not Listed
Methanol 67-56-1	30-35	Not Listed	Not Listed	Not Listed
Carbon Dioxide 124-38-9	5-15	Not Listed	Not Listed	Not Listed
Acetone 67-64-1	1-10	Not Listed	Not Listed	Not Listed

Component	Weight %	OSHA Z PEL	OSHA Z TWA	OSHA Z Ceiling
Toluene 108-88-3	50-60	Not Listed	200 ppm 375 mg/m ³ 100 ppm	300 ppm
Methanol 67-56-1	30-35	260 mg/m ³ 200 ppm	260 mg/m ³ 200 ppm	Not Listed
Carbon Dioxide 124-38-9	5-15	9000 mg/m ³ 5000 ppm	18000 mg/m ³ 10000 ppm	Not Listed
Acetone 67-64-1	1-10	2400 mg/m ³ 1000 ppm	1800 mg/m ³ 750 ppm	Not Listed

Component	ACGIH TLV TWA	ACGIH TLV STEL	ACGIH TLV Ceiling
Toluene 108-88-3	50 ppm	Not Listed	Not Listed
Methanol 67-56-1	200 ppm	250 ppm	Not Listed
Carbon Dioxide 124-38-9	5000 ppm	30000 ppm	Not Listed
Acetone 67-64-1	500 ppm	750 ppm	Not Listed

Other: This product does not contain Normal Hexane (N-Hexane).

3. HAZARDS IDENTIFICATION

Emergency Overview: Danger: Poison. Extremely Flammable. Content under pressure. Ingestion of even small amounts of methanol can cause blindness and death. This material is an eye and skin irritant. Harmful if absorbed through the skin. Keep away from heat, sparks and flame. Gross inhalation overexposure may cause: respiratory track irritation, kidney damage, blood, liver damage, lung damage and central nervous system depression.

HMIS Classification: Health: *2 Flammability: 3 Physical Hazard: 2
NFPA Rating: Health: 2 Flammability: 3 Reactivity: 0

MATERIAL SAFETY DATA SHEET

Trade Name: Johnsen's Brake Cleaner 10 oz 12/cs (Non-VOC compliant)
MSDS NO. 2418NC
Revision Date: 12/04/2008
Date Printed 12/04/2008

4. FIRST AID MEASURES

Eye Contact: In case of contact, or suspected contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention immediately after flushing.
Ingestion: If swallowed, do NOT induce vomiting. Call a physician immediately. Never give anything by mouth to an unconscious person. If vomiting occurs, keep head lower than hips to prevent aspiration.
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 shoes, and launder before reuse.

5. FIRE FIGHTING MEASURES

Flammable Properties

Flash Point °F(°C): -20 F (Lowest Component)
Flash Point Method: TAG Closed Cup
Flammable Limits in Air - Lower (%): 2.5% (Lowest Component)
Flammable Limits in Air - Upper (%): 12.8% (Lowest Component)
Autoignition Temperature °F(°C): 725 F (Lowest Component)
Extinguishing Media: Dry chemical. Carbon dioxide. Alcohol foam. Use water spray to keep containers cool that are exposed to heat or flames.

Protection Of Fire-Fighters:

Special Fire-Fighting Procedures: Wear approved positive-pressure self-contained breathing apparatus and protective clothing. Vapor may cause flash fire.
Hazardous Combustion Products: Carbon Dioxide. Carbon Monoxide. Formaldehyde.
Aerosol Comments: NFPA Level 3 Aerosol

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Wear appropriate protective clothing and equipment to prevent skin and eye contact.
Spill Procedures: Contain any liquid from leaking containers. Avoid all sources of ignition; heat, sparks and open flames.
Action to be taken if material is released or spilled: Do not puncture or incinerate container. Contents under pressure. Wear proper protective equipment as specified in the protective equipment section. Remove sources of ignition. Leaking containers should be removed to an isolated, well-ventilated area and transferred to other suitable containers. Wipe, scrape, or soak up in an inert material and put in a container intended for flammable materials for disposal. Persons not trained should evacuate area.
Environmental Precautions: Do not allow to enter sanitary drains, sewer or surface and subsurface waters. Keep out of lakes, ponds or streams.

7. HANDLING AND STORAGE

Handling and Storage: Caution: Contents under pressure. Keep away from heat and open flame. Use only in a well ventilated area. Avoid breathing vapors, if exposed to high vapor concentration, leave area at once. Avoid contact with skin and eyes. Do not puncture, incinerate or store above 120 F. Exposure to high temperatures may cause bursting. DO NOT store in the passenger compartment of an automobile.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: Use in a well ventilated area. Local exhaust ventilation as necessary to maintain exposures to within applicable limits. Eyewash stations. Showers.
Eyes: Chemical goggles; also wear a face shield if splashing hazard exists.
Skin Protection: Avoid skin contact. Wear protective clothing and gloves.
Respiratory Protection: Do not breath mist or vapor. Use in a well ventilated area. Appropriate respiratory protection shall be worn when applied engineering controls are not adequate to protect against inhalation exposure.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Colorless to pale yellow liquid
Odor: MILD
pH Value: Not Determined
Vapor Pressure: Not Determined
Vapor Density (Air=1): Approximately 2.0

MATERIAL SAFETY DATA SHEET

Trade Name: Johnsen's Brake Cleaner 10 oz 12/cs (Non-VOC compliant)
MSDS NO. 2418NC
Revision Date: 12/04/2008
Date Printed: 12/04/2008

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point (°F): 133 F (Lowest Component)
Melting/Freezing Point: < -110 F.
Solubility in Water: 64 %
Bulk Density at 20°C: Not Determined
Molecular Weight: Mixture
Specific Gravity (H20=1): .82 @ 68 F.
Viscosity: Not Determined.
Evaporation Rate: Not Determined
VOC Content(%): 89%
Decomposition Temperature: Not Determined

10. STABILITY AND REACTIVITY

Chemical Stability: Stable under normal conditions of handling, use and transportation.
Conditions to Avoid: Keep away from heat, sparks and flame. Avoid any source of ignition. Do not expose to heat or store at temperatures above 120 F.
Materials to Avoid: Nitric acid. Sulfuric Acid. Strong acids. Contact with oxidizing agents. Chlorine compounds. Alkalis. Potassium t-butoxide. Beryllium Dihydride. Magnesium. Nitrogen Tetraoxide. Strong bases. Methanol has an explosive reaction with chloroform + sodium methoxide and diethyl zinc. Methanol has a violent reaction with alkyl aluminum salts, acetyl bromide, chloroform + sodium hydroxide, cyanuric chloride, nitric acid, etc.
Hazardous Decomposition Products: Carbon monoxide. Carbon dioxide. Formaldehyde.
Hazardous Polymerization: WILL NOT OCCUR

11. TOXICOLOGICAL INFORMATION

Toxicological Data:

Component	Route	Species	Dose
Toluene 108-88-3	Inhalation	Rats	LC50 49 gm/m ³ /4H
Methanol 67-56-1	Inhalation	Rats	LC50 64,000 ppm
Carbon Dioxide 124-38-9	NA	NA	Not known.
Acetone 67-64-1	Inhalation	Rats	LC50 50100 mg/m ³ /8H

Carcinogenicity:

Component	IARC	NTP	OSHA
Toluene 108-88-3	Group 3 (not classifiable)	Not Listed	Not Listed
Methanol 67-56-1	Not Listed	Not Listed	Not Listed
Carbon Dioxide 124-38-9	Not Listed	Not Listed	Not Listed
Acetone 67-64-1	Not Listed	Not Listed	Not Listed

12. ECOLOGICAL INFORMATION

Remarks: Ecological testing has not been conducted on this product.

13. DISPOSAL CONSIDERATION

Waste Classification: Residues and spilled material are hazardous waste due to ignitability.
Waste Management: Not determined.
Disposal Method: Disposal should be made in accordance with federal, state and local regulations.

MATERIAL SAFETY DATA SHEET

Trade Name: Johnsen's Brake Cleaner 10 oz 12/cs (Non-VOC compliant)
MSDS NO. 2418NC
Revision Date: 12/04/2008
Date Printed 12/04/2008

14. TRANSPORTATION INFORMATION

U.S. DOT:
Proper Shipping Name: ORM-D CONSUMER COMMODITY
Hazard Class: ORM-D
UN/NA Number: Not Applicable
DOT Packing Group: Not Applicable

IMDG:
Proper Shipping Name: Aerosols (Limited Quantity)
Hazard Class: 2.1
Hazard Subclass: Not determined.
UN No.: UN1950
Packing Group: Not Applicable.
Marine Pollutant: No

15. REGULATORY INFORMATION

US Federal Regulations:

Component	SARA 313	SARA 302	TPQ	RQ
Toluene 108-88-3	Listed.	Not Listed	Not Listed	Not Listed
Methanol 67-56-1	Listed.	Not Listed	Not Listed	Not Listed
Carbon Dioxide 124-38-9	Not Listed	Not Listed	Not Listed	Not Listed
Acetone 67-64-1	Not Listed	Not Listed	Not Listed	Not Listed

US OSHA HEALTH CLASSIFICATION: Hazardous per OSHA 29 CFR 1910.1200
SARA 311/312 Hazard Categories: Not Determined.

State Regulations:

Component	California Prop. 65 Cancer list	California - Prop 65 Developmental Toxicity	California Prop. 65 Reproductive Female	California Prop. 65 Reproductive Male
Toluene 108-88-3	Not Listed	Listed: January 1, 1991 Developmental toxin.	Not Listed	Not Listed
Methanol 67-56-1	Not Listed	Not Listed	Not Listed	Not Listed
Carbon Dioxide 124-38-9	Not Listed	Not Listed	Not Listed	Not Listed
Acetone 67-64-1	Not Listed	Not Listed	Not Listed	Not Listed

MATERIAL SAFETY DATA SHEET

Trade Name: Johnsen's Brake Cleaner 10 oz 12/cs (Non-VOC compliant)
MSDS NO. 2418NC
Revision Date: 12/04/2008
Date Printed 12/04/2008

Component	New Jersey Right-to-Know List:
Toluene 108-88-3	Substance no. 1866 Substance no. 2422 Substance no. 2423 Substance no. 2425 Substance no. 2426 Substance no. 2427 Substance no. 2428 Substance no. 2429 Substance no. 2430
Methanol 67-56-1	Substance no. 2079 Substance no. 2422 Substance no. 2423 Substance no. 2425 Substance no. 2426 Substance no. 2427 Substance no. 2428 Substance no. 2429 Substance no. 2430 Substance no. 1222
Carbon Dioxide 124-38-9	Substance no. 0343
Acetone 67-64-1	Substance no. 0006 Listed Substance no. 2422 Substance no. 2423 Substance no. 2425 Substance no. 2426 Substance no. 2427 Substance no. 2428 Substance no. 2429 Substance no. 2430

U.S. TSCA: The components of this product are listed on the TSCA Inventory.
Canadian Inventory: The components of this product are listed on the Canadian DSL or NDSL Inventory.

16. OTHER INFORMATION

General Notes: Do not allow undiluted material or large quantities to reach groundwater, bodies of water or sewer system.
Disclaimer: The information and recommendations contained herein are based upon tests believed to be reliable. However, the manufacturer/distributor of this product does not guarantee their accuracy or completeness NOR SHALL ANY OF THIS INFORMATION CONSTITUTE A WARRANTY, WHETHER EXPRESSED OR IMPLIED, AS TO THE SAFETY OF THE GOODS, THE MERCHANTABILITY OF THE GOODS, OR THE FITNESS OF THE GOODS FOR A PARTICULAR PURPOSE. Adjustment to conform to actual conditions of usage may be required. The manufacturer/distributor assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied.