

MSDS - Material Safety Data Sheet

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SECTION 1 - PRODUCT IDENTIFICATION

Product Identifier: **A-16 Cleaning Fluid**

Product Use: Spot cleaning of apparel and textiles

This MSDS complies with 29CFR 19190.1200 (Hazard Communication Standard) and WHMIS regulations.

IMPORTANT: Read this MSDS before handling and disposing of this product. Pass this information on to employees, customers, and users of this product.

SECTION 2 – CHEMICAL COMPOSITION/HAZARDOUS INGREDIENTS

| Ingredients | CAS# | %(weight) | OSHA | ACGIH | LC50(rat,inh) | LD50(mg/kg) | |
|--------------------|----------|-----------|----------|----------|---------------|-------------|----------------|
| | | | PEL(ppm) | TLV(ppm) | (ppm/4hr) | rat, oral | dermal, rabbit |
| Methylene Chloride | 75-09-2 | 60-100 | 25 | 50 | 14,250 | 1600 | N/Av |
| 2-Propanol | 67-63-0 | 10-30 | 400 | 400 | 17,000 | 4710 | 12,800 |
| Perchloro-Ethylene | 127-18-4 | 10-30 | 100 | 25 | 3786 | 2600 | >3245 |

| Sara 313 Listed Chemicals | CAS# | %(weight) |
|---------------------------|----------|-----------|
| Dichloromethane | 75-09-2 | 60-100 |
| Tetrachloroethylene | 127-18-4 | 10-30 |

Chemical Family: Chlorinated Solvent Blend
Product TLV/PEL: 75ppm TWA calculated.

CAS No.: Mixture

SECTION 3 – HAZARDS IDENTIFICATION

*** POTENTIAL HEALTH EFFECTS***

Target organs: Eyes, skin, respiratory system, digestive system, central nervous system

Signs and symptoms of short-term (acute) exposure:

Inhalation: Inhalation may cause irritation to the nose, throat, and respiratory system. Symptoms of overexposure may include headache, nausea, vomiting, dizziness, loss of co-ordination, coughing and shortness of breath.

Skin contact: Skin contact may cause mild to moderate irritation. Symptoms may include redness and blistering. Contact with this product may result in skin absorption.

Eye contact: Direct eye contact can cause irritation. Symptoms may include stinging, tearing, redness and swelling.

Ingestion: Ingestion of large amounts may cause nausea, vomiting, headaches, dizziness, and gastrointestinal irritation.

Effects of long-term (chronic) exposure: Prolonged or repeated skin exposure may cause redness, burning, drying and cracking of the skin (dermatitis). May cause liver and kidney damage.

Other important hazards: This product may be aspirated into the lungs after ingestion resulting in life-threatening lung damage. CNS depression may result from exposure.

SECTION 4 – FIRST AID MEASURES

Inhalation: Immediately remove person to fresh air. If breathing stops, provide rescue breathing. If respiratory symptoms or other symptoms of exposure develop, obtain medical attention immediately.

Skin contact: Flush skin with soap and running water for at least 5 minutes, while removing contaminated clothing. If irritation persists obtain medical attention. Launder clothing before re-use.

Eye contact: For exposure to vapors, remove person to fresh air. If irritation or redness develops, flush eye with water and obtain medical attention. For direct eye contact, flush eyes with running water for at least 15 minutes. Obtain medical attention.

Ingestion: If swallowed, DO NOT induce vomiting. Obtain medical attention immediately. This material is a potential aspiration hazard.

SECTION 5 – FIRE FIGHTING MEASURES

Fire hazards/conditions of flammability: This material is not considered flammable, however, it may be ignited by heat, sparks, flames, or other sources of ignition (e.g. static electricity, pilot lights, or mechanical/electrical equipment). Vapors are heavier than air and may accumulate in low lying areas. Container may explode if not properly cooled during a fire. Toxic Hydrogen chloride, Chlorine gas and Phosgene may be released during a fire.

Flash point (Method): None detected (Tag closed cup)

Lower flammable limit(% by volume): N/Av

Upper flammable limit(% by volume): N/Av

Explosion data:

Sensitivity to mechanical impact: No

Sensitivity to static discharge: Yes

Oxidizing properties: No

Auto-ignition temperature: N/Av

Suitable extinguishing media: Use dry chemical, carbon dioxide or a universal type foam.

Special fire-fighting procedures/equipment: Firefighters should wear proper protective equipment and respiratory protection as conditions warrant. Move containers from fire area if it can be done without risk. Water spray may be useful in minimizing or dispersing vapors and cooling equipment exposed to heat and flame. Avoid spreading burning liquid with water spray used for cooling purposes

Hazardous combustion products: Carbon monoxide, carbon dioxide, hydrogen chloride, chlorine, phosgene.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal precautions: Restrict access to area until completion of clean-up. Ensure clean-up is conducted by trained personnel only. All persons dealing with clean-up should wear the appropriate protective equipment including self-contained breathing apparatus. Keep all other personnel upwind and away from the spill/release.

Environmental Precautions: Ensure spill product does not enter drains, sewers, waterways, or confined spaces. Dike far ahead of the spill for later recovery or disposal.

Spill response/Cleanup: Eliminate all sources of ignition and remove any hot metal surfaces. Stop leak if you can do so without risk. Use water spray to reduce vapors. Contain and absorb with non-combustible absorbent material, then place absorbent material into a container for later disposal (see Section 13). Contaminated absorbent material may pose the same hazards as the spilled product. Notify the appropriate authorities as required.

Prohibited materials: None known.

Special spill response procedures: If a spill/release in excess of EPA reportable quantities is made into the environment, immediately notify the national response center (phone: 1-800-424-8002). DOT/CERCLA

Reportable quantity: Dichloromethane (RQ 1000 lbs.)

SECTION 7 – HANDLING AND STORAGE

Safe handling procedures: This material can be ignited by ignition sources, heat sparks, and flame. Eliminate all ignition sources. Bond and ground containers, hoses and piping when transferring liquid. Keep container tightly closed when not in use. Use caution when opening cap. Avoid inhalation of vapors. Avoid contact with skin, eyes, and clothing. Wash thoroughly after handling.

Storage Requirements: Store in a cool, dry, well-ventilated area away from all sources of ignition and incompatible materials. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Inspect periodically for damage or leaks. Keep quantity stored as small as possible.

Incompatible materials: This product forms combustible and/or explosive mixtures with air and/or oxygen. Strong acids or bases, oxidizing agents, selected amines, zinc, aluminum, alkali metals, halogens, anhydrides, isocyanates, acetaldehyde, chlorine, ethylene oxide, hydrogen peroxide, organometallic contaminants.

Special packaging materials: Not available.

SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

Ventilation and engineering controls: Use general or local exhaust ventilation to meet TLV requirements, or where explosive mixtures or electrical systems may be present.

Respiratory protection: Respiratory protection is required if the airborne concentration exceeds the TLV. Air-purifying respirators, gas masks, or a self-contained breathing apparatus are recommended depending on the airborne concentration levels.

Protective gloves: Gloves impervious to the material are recommended. Advice should be sought from glove suppliers.

Eye protection: Safety goggles to prevent direct contact, irritation, or injury.

Other protective equipment: Uniform, and eyewash station.

Permissible exposure levels: See Section 2.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Physical form, color, and odor: Clear, colorless liquid, solvent odor.

Odor threshold: Not Available

pH: Not Available

Boiling Point: 114°F(45.6°C)(approximate)

Specific gravity (@68°F/20°C) or relative density (water=1): 1.27

Melting/freezing point: Not Available

Vapor pressure: 300mm Hg@20°C (calculated)
Vapor density: Not Available
Evaporation rate (nBuAOC=1): 11
Coefficient of oil/water distribution: Not Available
Solubility in water (%): 15 (estimated)
Volatile organic compounds (VOCs): 278.5 g/L.
Percent Volatile by Weight: 100

SECTION 10 – REACTIVITY AND STABILITY DATA

Stability and reactivity: Stable under the recommended storage and handling conditions prescribed. This product forms combustible and/or explosive mixtures with air and/or oxygen. Hazardous polymerization will not occur.

Conditions to avoid: Static discharge, friction, heat, open flame, other sources of ignition, and air.

Materials to avoid: Incompatible materials (see Section 7).

Hazardous decomposition products: Carbon monoxide, carbon dioxide, hydrochloric acid, chlorine, and carbonyl halides, such as phosgene.

SECTION 11 – TOXICOLOGICAL INFORMATION

LD₅₀: See Section 2

LC₅₀: See Section 2

Routes of exposure: Skin contact, eye contact, absorption, inhalation, and ingestion.

Toxicological data: There is no available data for the product itself, only for the ingredients.

Carcinogenicity: Dichloromethane and Tetrachloroethylene are listed as possibly carcinogenic to humans by IARC and NTP. ACGIH lists Dichloromethane and Tetrachloroethylene as carcinogenic to animals with unknown human significance.

Teratogenicity, mutagenicity, other reproductive effects: Dichloromethane is a suspected mutagenic effector. 2-Propanol is a suspected reproductive effector.

Sensitization to material: None known.

Conditions aggravated by exposure: Skin disorders, lung (asthma-like) disorders, cardiovascular disease.

Synergistic materials: Carbon monoxide.

SECTION 12 – ECOLOGICAL INFORMATION

Environmental effects: The product should not be allowed to enter drains or water courses or be deposited where it can affect ground or surface waters.

Important environmental characteristics: Not Available

Aquatic toxicity: There is no data available on the product itself.

SECTION 13 – WASTE DISPOSAL

Handling for disposal: Handle waste according to recommendations in Section 7.

Methods of disposal: 'Empty' drums should be completely drained, properly bunged, and promptly shipped to the supplier or drum reconditioner. All other containers should be disposed of in accordance with all applicable federal, provincial, state and local regulations.

SECTION 14 – TRANSPORTATION INFORMATION**Transportation of Dangerous Goods (TDG) information:**

Shipping description: Toxic liquid, organic n.o.s. (Dichloromethane, Tetrachloroethylene), Class 6.1, UN2810, PGIII

49 CFR information:

Shipping description:

Compound, Cleaning Liquid Consumer Commodity (**1 gal container only**)
DOT Hazard Class: ORM-D

Toxic liquid, organic, n.o.s. (Contains Dichloromethane, Tetrachloroethylene), 6.1, UN2810, PG III (for 5 gal or 55 gal drums) DOT Hazard Class: 6.1

International Dangerous Goods information:

IMO: Toxic liquid, organic, n.o.s.*(Dichloromethane, Tetrachloroethylene), Class 6.1, UKN2810, PG III

ICAO: Toxic liquid, organic, n.o.s.*(Dichloromethane, Tetrachloroethylene), Class 6.1, UKN2810, PG III

SECTION 15 – REGULATORY INFORMATION

WHMIS information: D1B(Toxic), D2A(Suspect cancer hazard), D2B(Eye and skin irritant)

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and this MSDS contains all the information required by the CPR.

CEPA information: All ingredients are listed on the DSL/NDSL.

TSCA information: All ingredients are listed on the TSCA inventory.

SARA

Section 302,304: None

Section 311,312: Acute, Chronic

Section 313: See Section 2

RCRA: Contains F001 Waste if used in degreasing, or F002 Waste if used in other applications.

HMIS: Health 2

Flammability 1

Reactivity 0

California Proposition 65: This product does contain chemicals known to the state of California to cause cancer.

SECTION 16 – OTHER INFORMATION

Legend:

N/Ap – Not Applicable

N/Av – Not Available

OSHA – Occupational Safety and Health Act

Inh – Inhalation

TLV – Threshold Limit Value

TSCA – Toxic Substances Control Act

DSL – Domestic Substances List

NDSL – Non-Domestic Substances List

IMO- International Maritime Organization

ICAO – International Civil Aviation Organization

CFR – Code of Federal Regulations

IARC – International Agency for Research on Cancer

CEPA – Canadian Environmental Protection Agency

NIOSH – National Institute for Occupational Safety and Health

ACGIH – American Conference of Governmental Industrial Hygienists

EPA – United States Environmental Protection Agency

DOT – United States Department of Transportation

CERCLA – Comprehensive Environmental Response, Compensation, and Liability Act (EPA)

TDG – Canadian Transportation of Dangerous Goods Act and Regulations

References: Canadian Centre for Occupational Health and Safety, databases (Macy 15, 2001)

Material Safety Data Sheets from manufacturer.

N.Irving Sax. Dangerous Properties of Industrial Materials. Seventh Edition

Hawley's Condensed Chemical Dictionary. Eleventh Edition

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Notice:

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