Material Safety Data Sheet

Dichloromethane, HPLC Grade, 99.9%

ACC# 89820

Section 1 - Chemical Product and Company Identification

MSDS Name: Dichloromethane, HPLC Grade, 99.9%
Catalog Numbers: AC610050040
Synonyms: Methylene Chloride, Methylene Dichloride, Freon30
Company Identification:

Acros Organics N.V.
One Reagent Lane
Fairlawn, NJ 07410

For information in North America, call: 800-ACROS-01
For information in Europe, call: 0032(0) 14575211
For emergencies in the US, call CHEMTREC: 800-424-9300
For emergencies outside the US, call: 0032(0) 14575299

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
75-09-2	Methylene chloride	99.9	200-838-9

Hazard Symbols: XN
Risk Phrases: 40

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: Colorless liquid. **Caution!** May cause respiratory tract irritation.May cause digestive tract irritation. May be harmful if swallowed.May cause central nervous system depression. May be absorbed throughthe skin. May cause fetal effects based upon animal studies. Maycause reproductive effects based upon animal studies. May causesevere eye and skin irritation with possible burns. May cause cancerbased on animal studies. May be harmful if inhaled.
Target Organs: Blood, central nervous system.

Potential Health Effects

Eye: Contact with eyes may cause severe irritation, and possible eye burns.
Skin: May be absorbed through the skin. Causes irritation with burning pain, itching, and redness. Prolonged exposure may result in skin burns.
Ingestion: May cause irritation of the digestive tract. May cause central nervous system depression, characterized by excitement, followed by headache, dizziness, drowsiness, and nausea. Advanced stages may cause collapse, unconsciousness, coma and possible death due to respiratory failure.
Inhalation: Inhalation of high concentrations may cause central nervous system effects characterized by headache, dizziness, unconsciousness and coma. Causes respiratory tract irritation. May cause blood changes. Overexposure may cause an increase in carboxyhemoglobin levels in the blood.
Chronic: Possible cancer hazard based on tests with laboratory animals. Prolonged or repeated

skin contact may cause dermatitis. May cause fetal effects.

Section 4 - First Aid Measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids. Get medical aid immediately.
Skin: Get medical aid. Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes.
Ingestion: If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.
Inhalation: Get medical aid immediately. Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.
Notes to Physician: Treat symptomatically and supportively.

Section 5 - Firefighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Vapors mixed with air in proper proportion will propagate a flame.
Extinguishing Media: In case of fire, use water, dry chemical, chemical foam, or alcohol-resistant foam. Use water spray to cool fire-exposed containers.
Autoignition Temperature: 1033 deg F (556.11 deg C)
Flash Point: Not applicable.
NFPA Rating: health-2; flammability-1; reactivity-0 Explosion Limits, Lower: 15.1 @ 103xC Upper: 17.3 @ 148xC

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.
Spills/Leaks: Absorb spill with inert material, (e.g., dry sand or earth), then place into a chemical waste container.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Use with adequate ventilation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation.
Storage: Store in a tightly closed container. Keep from contact with oxidizing materials. Store in a cool, dry, well-ventilated area away from incompatible substances.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.
Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
		NIOSH Potential	25 ppm TWA; 125 ppm

Methylene chloride	50 ppm ; 174 mg/m3	Occupational Carcinogen - see Appendix A Potential NIOSH carcinogen.	STEL (15 min. TWA); 25 ppm TWA (8 hr.); 125 ppm

OSHA Vacated PELs: Methylene chloride: 500 ppm TWA
Personal Protective Equipment
Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.
Skin: Wear appropriate protective gloves to prevent skin exposure.
Clothing: Wear appropriate protective clothing to prevent skin exposure.
Respirators: Follow the OSHA respirator regulations found in 29CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

Section 9 - Physical and Chemical Properties

Physical State: Liquid
Appearance: Colorless liquid.
Odor: ethereal odor
pH: Not available.
Vapor Pressure: 350 mm Hg @ 20
Vapor Density: 2.9 (Air=1)
Evaporation Rate:
Viscosity: Not available.
Boiling Point: 104 deg F
Freezing/Melting Point:-142 deg F
Decomposition Temperature: Not available.
Solubility: Moderately soluble in water
Specific Gravity/Density:1.33 (Water=1)
Molecular Formula:CH2Cl2
Molecular Weight:

Section 10 - Stability and Reactivity

Chemical Stability: Stable.
Conditions to Avoid: Incompatible materials, strong oxidants.
Incompatibilities with Other Materials: Incompatible with strong oxidizers. Can react dangerously with nitrogen tetroxide, liquid oxygen, potassium, sodium, sodium-potassium alloys, lithium, potassium hydroxide with N-methyl-N-nitroso urea, potassium t-butoxide, and finely powdered aluminum and magnesium. occurred with with mixtures of this materials and liquid ammonia or dimethylaminopropylamine.
Hazardous Decomposition Products: Hydrogen chloride, phosgene, carbon monoxide, carbon dioxide.
Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information

RTECS#:
CAS# 75-09-2: PA8050000
LD50/LC50:
CAS# 75-09-2:

Inhalation, mouse: LC50 =14400 ppm/7H;
Inhalation, rat: LC50 =88 gm/m3/30M;
Oral, rat: LD50 = 1600 mg/kg;
Carcinogenicity:
CAS# 75-09-2:
ACGIH: A3 - Animal Carcinogen
California: carcinogen - initial date 4/1/88
NIOSH: occupational carcinogen
NTP: Suspect carcinogen
OSHA: Possible Select carcinogen
IARC: Group 2B carcinogen
Epidemiology: An historical cohort study of persons occupationally exposed to methylene chloride revealed no significantly incre ased cancer or ischemic heart disease mortality compar ed to a group of nonexposed employees as well as general p opulation controls. The most recent update and expansion of this study demonstrated no unusual mortality patterns for hypothesized causes of death and no evidence of a dose-response relationship with respect to career exposure a nd latency. See IARC volume 41 for a more detailed d iscussion.
Teratogenicity: Specific developmental abnormalities (musculoskeletal/urogenital): inl-mus TCLo:1250ppm/tH Stunted fetus, Oral-rat, TDLo=1260 mg/kg (6-15D preg) Developmental abnormalities: Craniofacial, Ihl-mouse, TCLo=100 ppm/7H (female 6-15D post); Musculoskeletal, Oral-rat, TDLo=1260 mg/kg (6-15D preg)
Reproductive Effects: No data available.
Neurotoxicity: No data available.
Mutagenicity: No data available.
Other Studies: No data available.

Section 12 - Ecological Information

Ecotoxicity: This chemical has a moderate potential to affect some aquatic organisms. It is resistant to biodegradation, and has a low potential to persist in the aquatic environment. 96-hr. EC50 (loss of equilibrium); Fathead minnow: 99mg/L; 96-hr. EC10: 66.3 mg/L. Bluegill sunfish: 96-hr. LC50=220 mg/L; Water flea: 24-hr. LC50=2270 mg/L; No observed effect level:1550 mg/L.
Environmental Fate: This material is not likely to bioconcentrate.
Physical/Chemical: Not available.
Other: Not available.

Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.
RCRA D-Series Maximum Concentration ofContaminants: None listed.
RCRA D-Series Chronic Toxicity ReferenceLevels: None listed.
RCRA F-Series: None listed.
RCRA P-Series: None listed.
RCRA U-Series: CAS# 75-09-2: waste numberU080.

Section 14 - Transport Information

	US DOT	IATA	RID/ADR	IMO	Canada TDG
Shipping Name:	DICHLOROMETHANE	No information available.	No information available.	No information available.	No information available.
Hazard Class:	6.1				

UN Number:	UN1593
Packing Group:	III

Section 15 - Regulatory Information

US FEDERAL

TSCA
CAS# 75-09-2 is listed on the TSCA inventory.
Health & Safety Reporting List
CAS# 75-09-2: Effective Date: October 4, 1982; Sunset Date: October 4, 1992
Chemical Test Rules
None of the chemicals in this product are under a Chemical Test Rule.
Section 12b
None of the chemicals are listed under TSCA Section 12b.
TSCA Significant New Use Rule
None of the chemicals in this material have a SNUR under TSCA.
SARA

Section 302 (RQ)
CAS# 75-09-2: final RQ = 1000 pounds (454 kg)
Section 302 (TPQ)
None of the chemicals in this product have a TPQ.
SARA Codes
CAS # 75-09-2: acute, chronic.
Section 313
This material contains Methylene chloride (CAS# 75-09-2, 99 9%),which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.
Clean Air Act:
CAS# 75-09-2 is listed as a hazardous air pollutant (HAP). This material does not contain any Class 1 Ozone depletors. This material does not contain any Class 2 Ozone depletors.
Clean Water Act:
None of the chemicals in this product are listed as Hazardous Substances under the CWA. CAS# 75-09-2 is listed as a Priority Pollutant under the Clean Water Act. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.
OSHA:
None of the chemicals in this product are considered highly hazardous by OSHA.
STATE
CAS# 75-09-2 can be found on the following state right to know lists: California, New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts.
The following statement(s) is(are) made in order to comply with the California Safe Drinking Water Act: WARNING: This product contains Methylene chloride, a chemical known to the state of California to cause cancer. California No Significant Risk Level: CAS# 75-09-2: no significant risk level = 50 ug/day **European / International Regulations**
European Labeling in Accordance with EC Directives
Hazard Symbols:
XN
Risk Phrases:
R 40 Possible risks of irreversible effects.
Safety Phrases:
S 23 Do not inhale gas/fumes/vapour/spray. S 24/25 Avoid contact with skin and eyes. S 36/37 Wear suitable protective clothing and gloves.
WGK (Water Danger/Protection)
CAS# 75-09-2: 2
Canada
CAS# 75-09-2 is listed on Canada's DSL/NDSL List.
WHMIS: Not available.

CAS# 75-09-2 is not listed on Canada's Ingredient Disclosure List.

Exposure Limits

CAS# 75-09-2: OEL-AUSTRALIA:TWA 100 ppm (350 mg/m3);Carcinogen OEL-AUSTRIA:TWA 100 ppm (360 mg/m3) OEL-BELGIUM:TWA 50 ppm (174 mg/m3);Carcinogen OEL-CZECHOSLOVAKIA:TWA 500 mg/m3;STEL 2500 mg/m3 OEL-DENMARK:TWA 50 ppm (175 mg/m3);Skin;Carcinoge OEL-FINLAND:TWA 100 ppm (350 mg/m3);STEL 250 ppm (870 mg/m3) OEL-FRANCE:TWA 100 ppm (360 mg/m3);STEL 500 ppm (1800 mg/m3) OEL-GERMANY:TWA 100 ppm (360 mg/m3);Carcinogen OEL-HUNGARY:STEL 10 mg/m3;Carcinogen OEL-JAPAN:TWA 100 ppm (350 mg/m3) OEL-THE NETHERLANDS:TWA 100 ppm (350 mg/m3);STEL 500 ppm OEL-THE PHILIPINES:TWA 500 ppm (1740 mg/m3) OEL-POLAND:TWA 50 mg/m3 OEL-RUSSIA:TWA 100 ppm;STEL 50 mg/m3 OEL-SWEDEN:TWA 35 ppm (120 mg/m3);STEL 70 ppm (25 mg/m3);Skin OEL-SWITZERLAND:TWA 100 ppm (360 mg/m3);STEL 500 ppm OEL-THAILAND:TWA 500 mg/m3;STEL 1000 mg/m3 OEL-TURKEY:TWA 50 0 ppm (1740 mg/m3) OEL-UNITED KINGDOM:TWA 100 ppm (350 mg/m3);STEL 25 0 ppm OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA check ACGIH TLV OEL IN NEW ZEALAND, SINGAPORE, VIETNAM check ACGI TLV

Section 16 - Additional Information

MSDS Creation Date: 2/02/1998

Revision #1 Date: 2/02/1998

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