

Material Safety Data Sheet

Bromine, 1M solution in dichloromethane

ACC# 14522

Section 1 - Chemical Product and Company Identification

MSDS Name: Bromine, 1M solution in dichloromethane

Catalog Numbers: AC389660000

Synonyms:

Company Identification:

Acros Organics N.V.

One Reagent Lane

Fair Lawn, NJ 07410

For information in North America, call: 800-ACROS-01

For emergencies in the US, call CHEMTREC: 800-424-9300

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
75-09-2	Methylene chloride	70-90	200-838-9
7726-95-6	Bromine	10-30	231-778-1

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Not available. Appearance: yellow-brown liquid.

Not available.

Target Organs: Respiratory system, gastrointestinal system, eyes, skin.

Potential Health Effects

Eye: Causes eye burns.

Skin: Causes skin burns.

Ingestion: Causes gastrointestinal tract burns.

Inhalation: Causes chemical burns to the respiratory tract. Toxic if inhaled.

Chronic: Limited evidence of a carcinogenic effect.

Section 4 - First Aid Measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

Skin: Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

Ingestion: Do not induce vomiting. Get medical aid immediately.

Inhalation: Get medical aid immediately. Remove from exposure and move 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 - Fire Fighting 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.

Extinguishing Media: Use foam, dry chemical, or carbon dioxide.

Flash Point: Not available.

Autoignition Temperature: Not available.

Explosion Limits, Lower: Not available.

Upper: Not available.

NFPA Rating: 2 - health, 1 - flammability, 0 - instability

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. vermiculite, sand or earth), then place in suitable container. Wear a self contained breathing apparatus and appropriate personal protection. (See Exposure Controls, Personal Protection section). Do not let this chemical enter the environment.

Section 7 - Handling and Storage

Handling: Do not breathe dust, mist, or vapor. Do not get in eyes, on skin, or on clothing. Do not ingest or inhale. Use only in a chemical fume hood.

Storage: Store in a cool, dry place. Store in a tightly closed container. Corrosives area.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Methylene chloride	50 ppm TWA	2300 ppm IDLH	25 ppm TWA (8 hr); 125 ppm STEL (15 min); 12.5 ppm Action Level (See 29 CFR 1910.1052)
Bromine	0.1 ppm TWA; 0.2 ppm STEL	0.1 ppm TWA; 0.7 mg/m ³ TWA 3 ppm IDLH	0.1 ppm TWA; 0.7 mg/m ³ TWA

OSHA Vacated PELs: Methylene chloride: 500 ppm TWA Bromine: 0.1 ppm TWA; 0.7 mg/m³ TWA

Personal Protective Equipment

Eyes: Wear chemical splash goggles.

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 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State: Liquid

Appearance: yellow-brown

Odor: Not available.

pH: Not available.

Vapor Pressure: Not available.

Vapor Density: Not available.

Evaporation Rate: Not available.

Viscosity: Not available.

Boiling Point: Not available.

Freezing/Melting Point: Not available.

Decomposition Temperature: Not available.

Solubility: Insoluble.

Specific Gravity/Density: Not available.

Molecular Formula: 2Br

Molecular Weight: 159.81

Section 10 - Stability and Reactivity

Chemical Stability: Not available.

Conditions to Avoid: Incompatible materials.

Incompatibilities with Other Materials: Strong oxidizing agents.

Hazardous Decomposition Products: Chlorine, carbon monoxide, carbon dioxide, hydrogen bromide, chloride fumes, bromine.

Hazardous Polymerization: Will not occur.

Section 11 - Toxicological Information

RTECS#:

CAS# 75-09-2: PA8050000

CAS# 7726-95-6: EF9100000

LD50/LC50:

CAS# 75-09-2:

Draize test, rabbit, eye: 162 mg Moderate;

Draize test, rabbit, eye: 10 mg Mild;

Draize test, rabbit, eye: 500 mg/24H Mild;

Draize test, rabbit, skin: 810 mg/24H Severe;

Draize test, rabbit, skin: 100 mg/24H Moderate;

Inhalation, mouse: LC50 = 14400 ppm/7H;

Inhalation, mouse: LC50 = 49100 mg/m³/6H;

Inhalation, mouse: LC50 = 54000 mg/m³/2H;

Inhalation, mouse: LC50 = 56220 mg/m³/7H;

Inhalation, rat: LC50 = 52 gm/m³;

Inhalation, rat: LC50 = 76000 mg/m³/4H;

Inhalation, rat: LC50 =

CAS# 7726-95-6:

Inhalation, mouse: LC50 = 750 ppm/9M;

Inhalation, mouse: LC50 = 2900 mg/m³;

Inhalation, rat: LC50 = 2700 mg/m³;

Inhalation, rat: LC50 = 2700 mg/m³;
Oral, mouse: LD50 = 3100 mg/kg;
Oral, rabbit: LD50 = 2500 mg/kg;
Oral, rat: LD50 = 1700 mg/kg;

Carcinogenicity:

CAS# 75-09-2:

- **ACGIH:** A3 - Confirmed animal carcinogen with unknown relevance to humans
- **California:** carcinogen, initial date 4/1/88
- **NTP:** Suspect carcinogen
- **IARC:** Group 2B carcinogen

CAS# 7726-95-6: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: No data available.

Teratogenicity: No data available.

Reproductive Effects: No data available.

Mutagenicity: No data available.

Neurotoxicity: No data available.

Other Studies:

Section 12 - Ecological Information

Ecotoxicity: No data available. No information available.

Environmental: No information available.

Physical: No information available.

Other: Do not empty into drains.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.

RCRA U-Series:

CAS# 75-09-2: waste number U080.

Section 14 - Transport Information

	US DOT	Canada TDG
Shipping Name:	CORROSIVE LIQUID, TOXIC, N.O.S.*	No information available.
Hazard Class:	8	
UN Number:	UN2922	
Packing Group:	I	

Section 15 - Regulatory Information

US FEDERAL

TSCA

CAS# 75-09-2 is listed on the TSCA inventory.

CAS# 7726-95-6 is listed on the TSCA inventory.

Health & Safety Reporting List

CAS# 75-09-2: Effective 10/4/82, Sunset 10/4/92

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.

CERCLA Hazardous Substances and corresponding RQs

CAS# 75-09-2: 1000 lb final RQ; 454 kg final RQ

SARA Section 302 Extremely Hazardous Substances

CAS# 7726-95-6: 500 lb TPQ

SARA Codes

CAS # 75-09-2: immediate, delayed.

CAS # 7726-95-6: immediate, fire.

Section 313

This material contains Methylene chloride (CAS# 75-09-2, 70-90%), which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

This material contains Bromine (CAS# 7726-95-6, 10-30%), 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. CAS# 75-09-2 is listed as a Toxic Pollutant under the Clean Water Act.

OSHA:

CAS# 7726-95-6 is considered highly hazardous by OSHA.

STATE

CAS# 75-09-2 can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Minnesota, Massachusetts.

CAS# 7726-95-6 can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Minnesota, Massachusetts.

California Prop 65

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: 200 æg/day NSRL (inhalation); 50 æg/day NSRL (except inhalation)

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols:

T+ N

Risk Phrases:

R 26 Very toxic by inhalation.

R 35 Causes severe burns.

R 40 Limited evidence of a carcinogenic effect.

R 50 Very toxic to aquatic organisms.

Safety Phrases:

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 36/37 Wear suitable protective clothing and gloves.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S 7/9 Keep container tightly closed and in a well-ventilated place.

WGK (Water Danger/Protection)

CAS# 75-09-2: 2

CAS# 7726-95-6: 3

Canada - DSL/NDSL

CAS# 75-09-2 is listed on Canada's DSL List.

CAS# 7726-95-6 is listed on Canada's DSL List.

Canada - WHMIS

not available.

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

Canadian Ingredient Disclosure List

CAS# 75-09-2 is listed on the Canadian Ingredient Disclosure List.

CAS# 7726-95-6 is listed on the Canadian Ingredient Disclosure List.

Section 16 - Additional Information

MSDS Creation Date: 7/13/2006

Revision #0 Date: Original.

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.