

MATERIAL SAFETY DATA SHEET

Semi-volatile Organics Standard

U.S. Department of Energy – Radiological and Environmental Sciences Laboratory

MSDS DATE: 12/02/2003

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: MAPEP Semi-Volatile Organics Performance Standard

MANUFACTURER: U.S. Department of Energy
DIVISION: Radiological and Environmental Sciences Laboratory
ADDRESS: Idaho Falls, ID 83401-4149

EMERGENCY PHONE: 208-526-2532
CHEMTREC PHONE: 208-526-1515
FAX PHONE: 208-526-2548

CHEMICAL NAME: water
CHEMICAL FORMULA: H₂O

PRODUCT USE: Performance Evaluation Program
PREPARED BY: Radiological and Environmental Sciences Laboratory

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT: Trace organic constituents in methylene chloride.

<u>CAS NO.</u>		<u>% WT</u>	<u>% VOL</u>	<u>SARA 313 REPORTABLE</u>
7732-18-5	water	100	100	NO
Trace organics		<1	NA	NA

SECTION 2 NOTES: Trace organics constitutes less than 1% composition by weight.

SECTION 3: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: May be harmful by inhalation, skin absorption or ingestion. Flush thoroughly with water for external contact.

ROUTES OF ENTRY: May be harmful by inhalation, skin absorption or ingestion.

POTENTIAL HEALTH EFFECTS

May be harmful by inhalation, ingestion, or skin adsorption. Can cause eye irritation. Can cause skin irritation. Can be irritating to mucous membrane.

CARCINOGENICITY

For the main component: water

OSHA: No **ACGIH:** No **NTP:** No **IARC:** No **NIOSH:** No **OTHER:** No

SECTION 3 NOTES: For the trace organic components

OSHA: No **ACGIH:** Yes **NTP:** Yes **IARC:** Yes **NIOSH:** Yes **OTHER:** Yes

SECTION 4: FIRST AID MEASURES

In case of contact:

EYES: Flush eyes continuously with water for 15 – 20 minutes.

SKIN: Flush skin continuously with water for 15 – 20 minutes. If no burns have occurred, use soap and water to cleanse skin.

INGESTION: Do not administer liquids or induce vomiting to an unconscious or convulsing person. Get medical attention immediately.

INHALATION: If inhaled, remove patient to fresh air.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS: Administer oxygen if patient is having difficulty breathing. If patient has stopped breathing administer artificial respirations. If patient is in cardiac arrest administer CPR. Continue life supporting measures until medical assistance has arrived. Remove and wash contaminated clothing. If patient is exhibiting signs of shock – keep warm and quiet. If patient is vomiting – watch closely to make sure airway does not become obstructed by vomit.

SECTION 4 NOTES: An antidote is a substance intended to counteract the effect of a poison. It should be administered by a physician for trained emergency personnel. Medical advice can be obtained from a physician or trained emergency personnel. Medical advice can be obtained from POISON CONTROL CENTER.

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SECTION 5: FIRE-FIGHTING MEASURES

For the carrier – water.

Material will not burn.

FLASH POINT: non-flammable

AUTOIGNITION TEMPERATURE: Not available

NFPA HAZARD CLASSIFICATION

HEALTH: 1

FLAMMABILITY: 0

REACTIVITY: 0

EXTINGUISHING MEDIA: Substance is noncombustible; use agent most appropriate to extinguish surrounding fire. Carbon dioxide, dry chemical or spray.

SPECIAL FIRE FIGHTING PROCEDURES: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent) and full protect gear. Use water spray to keep fire-exposed containers cool. Substance is noncombustible.

SECTION 6: ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES: Use proper personal protective equipment as indicated in Section 8.

SECTION 6 NOTES: For spills/leaks: Evacuate area. Wear appropriate OSHA regulated equipment. Ventilate area. Absorb spill with inert material, (e.g., dry sand, earth or vermiculite), then place into a chemical waste container. Hold for disposal.

SECTION 7: HANDLING AND STORAGE

HANDLING AND STORAGE: This chemical should be handled only in a hood. Eye shields should be worn. Use appropriate OSHA/MSHA approved safety equipment. Avoid contact with skin, eyes and clothing. Avoid ingestion and inhalation. Wash thoroughly after handling. STORE UNDER REFRIGERATION. Store only with compatible chemicals. Keep tightly closed.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

RESPIRATORY PROTECTION: Wear a NIOSH/MSHA or European Standard EN 149 approved full-facepiece airline respirator in the positive pressure mode with emergency escape provisions. Follow the OSHA respirator regulations found in 29CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard 149 approved respirator when necessary.

EYE PROTECTION: 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 PROTECTION: Wear appropriate protective gloves and clothing to prevent skin exposure.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

For the solvent water.

APPEARANCE:	clear, colorless
PHYSICAL STATE:	Liquid
pH AS SUPPLIED:	7
BOILING POINT:	100°C
MELTING POINT:	0°C
VAPOR PRESSURE (mmHg):	17.5 mm @ 20°C
VAPOR DENSITY (AIR = 1):	not available
VISCOSITY:	1 cP @ 20°C
SPECIFIC GRAVITY (H2O = 1):	1.0 @ 20°C
SOLUBILITY IN WATER:	soluble in water.
ODOR:	none
EVAPORATION RATE:	not available
MOLECULAR WEIGHT:	18.0134
CHEMICAL FORMULA:	H ₂ O

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SECTION 10: STABILITY AND REACTIVITY

STABILITY: Stable under normal temperatures and pressures.

CONDITIONS TO AVOID (STABILITY): Freezing temperatures may rupture glass container.

INCOMPATIBILITY (MATERIAL TO AVOID): None.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: None.

HAZARDOUS POLYMERIZATION: Has not been reported.

SECTION 11: TOXICOLOGICAL INFORMATION

For the main constituent WATER.

RTECS:

CAS# 7732-18-5: ZC0110000

Oral Rat LD50: >90 mL/kg

CARCINOGENICITY: Not listed by ACHIH, IARC, NIOSH, NTP or OSHA.

EPIDEMIOLOGY: No data available.

TERATOGENICITY: No data available.

REPRODUCTIVE EFFECTS: No data available.

NEUROTOXICITY: No data available.

MUTAGENICITY: No data available.

OTHER STUDIES: No data available.

CARCINOGENICITY OF TRACE ORGANICS:

OSHA: No

ACGIH: Yes A3

NTP: Yes S

IARC: Yes 2b

NIOSH: Yes

OTHER: No

SECTION 12: ECOLOGICAL INFORMATION

Environmental Fate: No information found.

Environmental Toxicity: Not available

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Dispose of container and unused contents in accordance with federal, state and local requirements.

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.

SECTION 14: TRANSPORT INFORMATION

For the main component: WATER

UN Number: no information available.

CLASS:

PACKING GROUP:

Proper shipping name: water

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SECTION 15: REGULATORY INFORMATION

For the main component: WATER

US FEDERAL

TSCA

CAS# 7732-18-5 is listed on the TSCA inventory.

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

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

CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

SARA Section 302 Extremely Hazardous Substances

Some of the trace chemicals in this product have a TPQ.

Section 313

Some of the trace chemicals in this standard are reportable under Section 313.

Clean Air Act:

This material does not contain any hazardous air pollutants. This material does not contain any Class 1 Ozone depleters. This material does not contain any Class 2 Ozone depleters.

Clean Water Act:

Some of the trace chemicals in this product are listed as Hazardous Substances under the CWA. All of the trace chemicals in this product are listed as Priority Pollutants under the CWA. Some of the trace chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

Some of the trace chemicals in this product are considered highly hazardous by OSHA.

STATE

CAS# 7732-18-5 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

California No Significant Risk Level: Some of the trace chemicals in this product are listed.

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols:

Not available.

Risk Phrases:

Safety Phrases:

WGK (Water Danger/Protection)

CAS# 7732-18-5: No information available.

Canada - DSL/NDSL

CAS# 7732-18-5 is listed on Canada's DSL List.

Canada - WHMIS

WHMIS: Not available.

Canadian Ingredient Disclosure List

Exposure Limits

SECTION 16: OTHER INFORMATION

OTHER INFORMATION:

NFPA Ratings: Health: 1 Flammability: 0 Reactivity: 0 Other:

Label Hazard Warning: POISON! DANGER! CARCINOGEN!. MAY BE HARMFUL IF SWALLOWED OR INHALED. INHALATION MAY CAUSE LUNG DAMAGE.

Label Precautions:

Do not get in eyes, on skin, or on clothing.

Do not breathe vapor or mist.

Use only with adequate ventilation.

Wash thoroughly after handling.

Keep from contact with clothing and other combustible materials.

Store in a tightly closed container.

Remove and wash contaminated clothing promptly.

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Label First Aid:

In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. If swallowed, DO NOT INDUCE VOMITING. Give large quantities of water. Never give anything by mouth to an unconscious person. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. In all cases get medical attention immediately.

PRODUCT USE: Laboratory Use Only – RESEARCH.

Persons not specifically and properly trained should not handle this chemical or its container.

DISCLAIMER: The US Department of Energy, Radiological and Environmental Sciences Laboratory provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.