



# SAFETY DATA SHEET

## Harvard Chemical Research, Inc.

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Version 1

### 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

#### Product identifier

Product Name Milban 1-2-3

#### Other means of identification

Product Code 624

Synonyms None

#### Recommended use of the chemical and restrictions on use

Recommended Use Water Damage Restoration Sanitizer.

Uses advised against No information available

#### Details of the supplier of the safety data sheet

##### Manufacturer Address

Harvard Chemical Research, Inc., 3595 Zip Industrial Blvd., Atlanta, GA 30354

#### Emergency telephone number

Company Phone Number 1-404-761-0657

24 Hour Emergency Phone Number 800-424-9300

Emergency Telephone Chemtrec 1-800-424-9300

### 2. HAZARDS IDENTIFICATION

#### Classification

##### **OSHA Regulatory Status**

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

#### Label elements

##### **Emergency Overview**

Appearance Clear

Physical state liquid

Odor Pleasant

#### Hazards not otherwise classified (HNOC)

##### Other Information

Unknown Acute Toxicity % of the mixture consists of ingredient(s) of unknown toxicity

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Weight-%	Trade Secret
Water	7732-18-5	<90	*
Octyl Decyl Dimethyl Ammonium Chloride	32426-11-2	<5	*
Alkyl Dimethyl Ammonium Chloride	68424-85-1	<5	*
Nonylphenoxypoly(ethyleneoxy)ethanol	9016-45-9	<5	*
Ethylene Diamine Tetraacetic Acid Disodium Salt	6381-92-6	<5	*
Citric Acid	77-92-9	<1	*

\*The exact percentage (concentration) of composition has been withheld as a trade secret.

**4. FIRST AID MEASURES**

**First aid measures**

- Eye contact** Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
- Skin Contact** Rinse with clear water.
- Inhalation** Remove to fresh air. If breathing does not return to normal, seek medical attention.
- Ingestion** Immediately drink large quantities of water. Get medical attention.

**Most important symptoms and effects, both acute and delayed**

**Symptoms** No information available.

**Indication of any immediate medical attention and special treatment needed**

**Note to physicians** Treat symptomatically.

**5. FIRE-FIGHTING MEASURES**

**Suitable extinguishing media**

Carbon dioxide (CO2). Dry chemical. Alcohol Foam.

**Unsuitable extinguishing media** Caution: Use of water spray when fighting fire may be inefficient.

**Specific hazards arising from the chemical**

No information available.

**Explosion data**

**Sensitivity to Mechanical Impact** None.

**Sensitivity to Static Discharge** None.

**Protective equipment and precautions for firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions, protective equipment and emergency procedures**

**Personal precautions** Ensure adequate ventilation, especially in confined areas.

**Environmental precautions**

**Environmental precautions** See Section 12 for additional ecological information.

**Methods and material for containment and cleaning up**

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Small spills mop up and flush away, large spills should be contained and moved to container for disposal.

**7. HANDLING AND STORAGE**

**Precautions for safe handling**

**Advice on safe handling** Handle in accordance with good industrial hygiene and safety practice.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Keep container tightly closed in a dry and well-ventilated place. Keep out of reach of children. Do not freeze. Follow label instructions.

**Incompatible materials** Strong acids. OXIDIZERS.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Control parameters**

**Exposure Guidelines** This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

**Appropriate engineering controls**

**Engineering Controls** Showers  
Eyewash stations  
Ventilation systems.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection** Tight sealing safety goggles.

**Skin and body protection** Wear Neoprene or protective rubber gloves. Drenching safety shower and eye wash station.

**Respiratory protection** If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

**General Hygiene Considerations** Handle in accordance with good industrial hygiene and safety practice.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Information on basic physical and chemical properties**

<b>Physical state</b>	liquid	<b>Odor</b>	Pleasant
<b>Appearance</b>	Clear	<b>Odor threshold</b>	No information available
<b>Color</b>	Clear		

<b><u>Property</u></b>	<b><u>Values</u></b>	<b><u>Remarks • Method</u></b>
<b>pH</b>	6.5	
<b>Melting point/freezing point</b>	No information available	

<b>Boiling point / boiling range</b>	100 >212°F
<b>Flash point</b>	No information available
<b>Evaporation rate</b>	<1
<b>Flammability (solid, gas)</b>	No information available
<b>Flammability Limit in Air</b>	
<b>Upper flammability limit:</b>	No information available
<b>Lower flammability limit:</b>	No information available
<b>Vapor pressure</b>	No information available
<b>Vapor density</b>	>1
<b>Specific Gravity</b>	1
<b>Water solubility</b>	completely soluble
<b>Solubility in other solvents</b>	No information available
<b>Partition coefficient</b>	No information available
<b>Autoignition temperature</b>	No information available
<b>Decomposition temperature</b>	No information available
<b>Kinematic viscosity</b>	No information available
<b>Dynamic viscosity</b>	No information available
<b>Explosive properties</b>	No information available
<b>Oxidizing properties</b>	No information available

**Other Information**

<b>Softening point</b>	No information available
<b>Molecular weight</b>	No information available
<b>VOC Content (%)</b>	No information available
<b>Density</b>	8.33
<b>Bulk density</b>	No information available

**10. STABILITY AND REACTIVITY**

**Reactivity**

No data available

**Chemical stability**

Stable under recommended storage conditions.

**Possibility of Hazardous Reactions**

None under normal processing.

**Hazardous polymerization**      Hazardous polymerization does not occur.

**Conditions to avoid**

Extremes of temperature and direct sunlight.

**Incompatible materials**

Strong acids. OXIDIZERS.

**Hazardous Decomposition Products**

Carbon dioxide (CO<sub>2</sub>). Carbon monoxide. heat.

**11. TOXICOLOGICAL INFORMATION**

**Information on likely routes of exposure**

<b>Product Information</b>	No data available
<b>Inhalation</b>	Irritation and difficulty in breathing.
<b>Eye contact</b>	Severely irritating to eyes.

**Skin Contact** No data available.  
**Ingestion** Gastric pain and vomiting.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Water 7732-18-5	> 90 mL/kg ( Rat )	-	-
Alkyl Dimethyl Ammonium Chloride 68424-85-1	= 426 mg/kg ( Rat )	-	-
Nonylphenoxypoly(ethyleneoxy)ethanol 9016-45-9	= 1310 mg/kg ( Rat ) = 2590 mg/kg ( Rat )	= 2 mL/kg ( Rabbit ) = 1780 µL/kg ( Rabbit )	-
Citric Acid 77-92-9	= 3000 mg/kg ( Rat )	-	-

**Information on toxicological effects**

**Symptoms** No information available.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Sensitization** No information available.  
**Germ cell mutagenicity** No information available.  
**Carcinogenicity** No information available.  
**Reproductive toxicity** No information available.  
**STOT - single exposure** No information available.  
**STOT - repeated exposure** No information available.  
**Aspiration hazard** No information available.

**Numerical measures of toxicity - Product Information**

**Unknown Acute Toxicity** % of the mixture consists of ingredient(s) of unknown toxicity  
The following values are calculated based on chapter 3.1 of the GHS document .

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

11.86% of the mixture consists of component(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Citric Acid 77-92-9	-	1516: 96 h Lepomis macrochirus mg/L LC50 static	120: 72 h Daphnia magna mg/L EC50

**Persistence and degradability**

No information available.

**Bioaccumulation**

No information available.

Chemical Name	Partition coefficient
Citric Acid 77-92-9	-1.72

**Other adverse effects** No information available

**13. DISPOSAL CONSIDERATIONS**

**Waste treatment methods**

**Disposal of wastes** Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging Do not reuse container.

#### 14. TRANSPORT INFORMATION

DOT Not regulated

#### 15. REGULATORY INFORMATION

##### International Inventories

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

##### Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory  
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List  
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
ENCS - Japan Existing and New Chemical Substances  
IECSC - China Inventory of Existing Chemical Substances  
KECL - Korean Existing and Evaluated Chemical Substances  
PICCS - Philippines Inventory of Chemicals and Chemical Substances  
AICS - Australian Inventory of Chemical Substances

##### US Federal Regulations

##### SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

##### SARA 311/312 Hazard Categories

Acute health hazard	No
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

##### CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

**US State Regulations**

**California Proposition 65**

This product does not contain any Proposition 65 chemicals

**U.S. State Right-to-Know Regulations**

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Water 7732-18-5	-	-	X

**U.S. EPA Label Information**

EPA Pesticide Registration Number Not Applicable

**16. OTHER INFORMATION**

<b><u>NFPA</u></b>	Health hazards 0	Flammability 0	Instability 0	Physical and Chemical Properties -
<b><u>HMIS</u></b>	Health hazards 1	Flammability 1	Physical hazards 0	Personal protection X

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Revision Note

No information available

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**