



MATERIAL SAFETY DATA SHEET

by Tyco Fire Suppression & Building Products

LVS Wet Chemical Agent

Product Code: 1030-2-007 ANa

Issue Date: 05-18-2011

1. Product and Company Identification

Material name LVS Wet Chemical Agent
Version # 02
Revision date 05-18-2011
CAS # Mixture
Product Code 1030-2-007 ANa
Product use Fire extinguishing agent
Manufacturer / Importer / Supplier
Name Tyco Fire Protection Products
Address One Stanton Street
Marinette, WI 54143-2542
Phone 715-735-7411
Internet <http://www.ansul.com>
Emergency Phone Number CHEMTREC 800-424-9300 or 703-527-3887

2. Hazards Identification

Emergency overview WARNING! Causes skin and eye irritation. Keep out of reach of children. Prolonged exposure may cause chronic effects.

Potential health effects

Routes of exposure Eye contact. Skin contact. Inhalation.

Eyes Do not get this material in contact with eyes.

Skin Avoid contact with the skin.

Inhalation Vapors may irritate mucous membranes. Do not breathe vapor.

Ingestion Not a likely route of entry.

Target organs Eyes. RESPIRATORY SYSTEM. Skin. Central nervous system.

Signs and symptoms Irritation of nose and throat. Irritation of eyes and mucous membranes. Defatting of the skin. Rash. Skin irritation.

3. Composition / Information on Ingredients

Components	CAS #	Percent
DIETHYLENE GLYCOL MONOBUTYL ETHER	112-34-5	1 - 5
ETHYLENE GLYCOL	107-21-1	10 - 30
Other components below reportable levels		> 60

4. First Aid Measures

First aid procedures

Eye contact Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation persists after washing.

Skin contact Wash off with warm water and soap. Get medical attention if irritation develops and persists.

Inhalation Move to fresh air.

Ingestion Rinse mouth. Do not induce vomiting without advice from poison control center. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

General advice If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

5. Fire Fighting Measures

Extinguishing media

Suitable extinguishing media This product is not flammable. Use extinguishing agent suitable for type of surrounding fire.

Protection of firefighters

Specific hazards arising from the chemical None known.

Protective equipment for firefighters None known.

Special protective equipment for fire-fighters None known.

Explosion data

Sensitivity to mechanical impact Not available.

Sensitivity to static discharge Not available.

Hazardous combustion products May include oxides of nitrogen.

6. Accidental Release Measures

Personal precautions Local authorities should be advised if significant spillages cannot be contained. Surfaces may become slippery after spillage.

Environmental precautions Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

Methods for containment Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Prevent entry into waterways, sewer, basements or confined areas.

Methods for cleaning up Should not be released into the environment.

Large Spills: Dike far ahead of spill for later disposal. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece).

Never return spills in original containers for re-use. Following product recovery, flush area with water. Clean surface thoroughly to remove residual contamination.

7. Handling and Storage

Handling Do not get this material in contact with eyes. Avoid contact with skin. Avoid prolonged exposure. Handle and open container with care.

Storage Store in cool place. Store in a well-ventilated place. Keep container tightly closed. Keep out of the reach of children. Use care in handling/storage.

8. Exposure Controls / Personal Protection

Occupational exposure limits

Canada - British Columbia

Components

	Type	Value	Form
ETHYLENE GLYCOL (107-21-1)	Ceiling	100.0000 mg/m3	Aerosol.
		50.0000 ppm	Vapor.
	STEL TWA	20.0000 mg/m3 10.0000 mg/m3	Particulate. Particulate.

Canada - Ontario

Components

	Type	Value
ETHYLENE GLYCOL (107-21-1)	Ceiling	100.0000 mg/m3

Components**Type****Value****Form**

ETHYLENE GLYCOL (107-21-1)

Ceiling

50.0000 ppm
127.0000 mg/m3Vapor and mist.
Vapor and mist.**Engineering controls**

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal protective equipment**Eye / face protection**

Do not get in eyes. Wear approved chemical safety glasses or goggles where eye exposure is reasonably probable.

Skin protection

Wear appropriate chemical resistant clothing. Chemical resistant gloves.

Respiratory protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

9. Physical & Chemical Properties**Appearance****Form**

Liquid.

Color

Clear. Colorless.

Odor

Slight. Vinegar-like.

Physical state

Liquid.

pH

10 - 12

Melting point

Not available.

Freezing point

Not available.

Boiling point

244.4 °F (118 °C)

Flash point

Not available.

Evaporation rate

Not available.

**Flammability limits in air, upper,
% by volume**

Not available.

**Flammability limits in air, lower,
% by volume**

Not available.

Vapor pressure

Not available.

Vapor density

Not available.

Specific gravity

1.2

Relative density

Not available.

Solubility (water)

Not available.

**Partition coefficient
(n-octanol/water)**

Not available

Auto-ignition temperature

Not available.

Decomposition temperature

Not available.

10. Chemical Stability & Reactivity Information**Chemical stability**

Material is stable under normal conditions.

Conditions to avoid

None known.

Incompatible materials

Strong oxidizing agents. Oxidizing agents. Peroxides. Acids.

**Hazardous decomposition
products**

Nitrogen oxides (NOx). Sulfur oxides. Carbon oxides.

11. Toxicological Information**Toxicological data****Components****Test Results**

ETHYLENE GLYCOL (107-21-1)

Acute Dermal LD50 Rabbit: 9530 mg/kg
Acute Oral LD50 Dog: > 8810 mg/kg

Components

ETHYLENE GLYCOL (107-21-1)

Test Results

Acute Oral LD50 Guinea pig: 8200 mg/kg

Acute Oral LD50 Mouse: 14600 mg/kg

Acute Oral LD50 Rat: 6140 mg/kg

Acute Other LD50 Mouse: 5.8 g/kg

Acute Other LD50 Rat: 2800 mg/kg

DIETHYLENE GLYCOL MONOBUTYL ETHER (112-34-5)

Acute Dermal LD50 Rabbit: 2700 mg/kg

Acute Oral LD50 Guinea pig: 2000 mg/kg

Acute Oral LD50 Rabbit: 2200 mg/kg

Acute Oral LD50 Rat: 6560 mg/kg

Acute Other LD50 Mouse: 850 mg/kg

Acute Other LD50 Rat: 500 mg/kg

Chronic effects

Prolonged inhalation may be harmful. Not expected to be hazardous by WHMIS criteria.

12. Ecological Information**Ecotoxicological data****Components****Test Results**

ETHYLENE GLYCOL (107-21-1)

LC50 Fathead minnow (*Pimephales promelas*): 8050 mg/l
96.00 hours

DIETHYLENE GLYCOL MONOBUTYL ETHER (112-34-5)

EC50 Algae: > 100 mg/l 96.00 Hours

EC50 Water flea (*Daphnia magna*): 3184 mg/l 24.00 hoursLC50 Bluegill (*Lepomis macrochirus*): 1300 mg/l 96.00 hours

* Estimates for product may be based on additional component data not shown.

Ecotoxicity

Contains a substance which causes risk of hazardous effects to the environment.

Environmental effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Persistence and degradability

Not available.

**Partition coefficient
(n-octanol/water)**

Not available

13. Disposal Considerations**Disposal instructions**

Dispose of contents/container in accordance with local/regional/national/international regulations. Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.

Waste from residues / unused products

Dispose of in accordance with local regulations.

14. Transport Information**TDG**

Not regulated as dangerous goods.

15. Regulatory Information**Canadian regulations**

This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

WHMIS status

Controlled

WHMIS classificationD2A - Other Toxic Effects-VERY TOXIC
D2B - Other Toxic Effects-TOXIC**WHMIS labeling**

Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

16. Other Information

Further information	HMIS® is a registered trade and service mark of the NPCA.
HMIS® ratings	Health: 2 Flammability: 0 Physical hazard: 0
NFPA ratings	Health: 2 Flammability: 0 Instability: 0
Issue date	05-18-2011
This data sheet contains changes from the previous version in section(s):	Product and Company Identification: Product and Company Identification