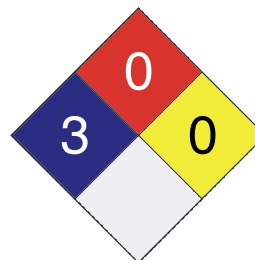


1. Product and Company Identification

Product Name	MSDS Example
CAS #	Mixture
Product Use	Cleaner
Manufacturer	Dell Tech Laboratories Ltd. UWO Research Park 100 Collip Circle, Suite 220 London, ON N6G 4X8 CA Phone: 1-519-858-5021 Fax: 1-519-858-5026 Emergency Phone: 1-519-858-5021

LEGEND HMIS/NFPA	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

Health	/ 3
Flammability	0
Physical Hazard	0
Personal Protection	B



2. Hazards Identification

Emergency Overview	DANGER -- CORROSIVE May cause chemical burns to eyes and skin.
Potential short term health effects	
Routes of exposure	Eye, Skin contact, Inhalation, Ingestion.
Eyes	May cause chemical burns. May cause blindness.
Skin	May cause chemical burns. Harmful contact may not cause immediate pain.
Inhalation	May cause respiratory tract irritation.
Ingestion	Harmful if swallowed. May cause chemical burns to mouth, throat and stomach.
Target organs	Eyes. Respiratory system. Skin.
Chronic effects	Prolonged or repeated exposure to dilutions can cause drying, defatting and dermatitis.
Signs and symptoms	The product causes burns of eyes, skin and mucous membranes.

3. Composition/Information on Ingredients

Ingredient(s)	CAS #	Percent
Nonyl phenoxy polyethoxy ethanol, branched	9016-45-9	1 - 5
Sodium hydroxide	1310-73-2	30 - 60

4. First Aid Measures

First aid procedures	
Eye contact	Immediately flush with cool water. Remove contact lenses, if applicable, and continue flushing for 15 minutes. Obtain medical attention immediately.
Skin contact	Immediately flush with water. Wash with soap and water. Obtain medical attention if irritation persists.
Inhalation	If symptoms develop move victim to fresh air. If symptoms persist, obtain medical attention.
Ingestion	Do not induce vomiting. Rinse mouth with water, then drink one or two glasses of water. Obtain medical attention. Never give anything by mouth if victim is unconscious, or is convulsing.

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

Flammable properties	Not flammable by WHMIS criteria.
Extinguishing media	
Suitable extinguishing media	Treat for surrounding material.
Unsuitable extinguishing media	Not available
Protection of firefighters	
Specific hazards arising from the chemical	Not available
Protective equipment for firefighters	Firefighters should wear full protective clothing including self contained breathing apparatus.
Hazardous combustion products	May include and are not limited to: Oxides of carbon. Oxides of sodium.
Explosion data	
Sensitivity to mechanical impact	Not available
Sensitivity to static discharge	Not available

6. Accidental Release Measures

Personal precautions	Keep unnecessary personnel away. Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak.
Methods for containment	Stop leak if you can do so without risk. Prevent entry into waterways, sewers, basements or confined areas.
Methods for cleaning up	Before attempting clean up, refer to hazard data given above. Small spills may be absorbed with non-reactive absorbent and placed in suitable, covered, labelled containers. Prevent large spills from entering sewers or waterways. Contact emergency services and supplier for advice. Never return spills in original containers for re-use. Should not be released into the environment.

7. Handling and Storage

Handling	Use good industrial hygiene practices in handling this material. Do not get this material in your eyes, on your skin, or on your clothing.
Storage	Keep out of the reach of children. Store in a closed container away from incompatible materials.

8. Exposure Controls / Personal Protection

Exposure limits	
Ingredient(s)	Exposure limits
Nonyl phenoxy polyethoxy ethanol, branched	ACGIH-TLV Not established
Sodium hydroxide	ACGIH-TLV Ceiling: 2 mg/m3
Engineering controls	General ventilation normally adequate.
Personal protective equipment	
Eye/Face protection	Wear chemical goggles.
Hand protection	Rubber gloves. Confirm with a reputable supplier first.
Skin and body protection	As required by employer code.
Respiratory protection	Where exposure guideline levels may be exceeded, use an approved NIOSH respirator.
General hygiene considerations	Use good industrial hygiene practices in handling this material. When using do not eat or drink. Wash hands before breaks and immediately after handling the product.

9. Physical & Chemical Properties

Appearance	Clear.
Colour	Colourless
Form	Liquid
Odour	Strong
Odour threshold	Not available
Physical state	Liquid
pH	> 12
Melting point	Not available
Freezing point	Not available
Boiling point	100 °C (212.00 °F)
Flash point	Not available
Evaporation Rate	Not available
Flammability limits in air, lower, % by volume	Not available
Flammability Limits in Air, Upper, % by Volume	Not available
Vapour pressure	Not available
Vapour density	Not available
Specific gravity	Not available
Octanol/water coefficient	Not available
Solubility (H2O)	Complete
Auto-ignition temperature	Not available
VOC (Weight %)	Not available
Viscosity	Water thin
Percent volatile	Not available

10. Chemical Stability & Reactivity Information

Chemical stability	Stable under recommended storage conditions.
Conditions to avoid	Do not mix with other chemicals. Reacts violently with acids. This product may react with oxidizing agents.
Incompatible materials	Acids. Oxidizing agents.
Hazardous decomposition products	May include and are not limited to: Oxides of carbon. Oxides of sodium.
Possibility of hazardous reactions	Hazardous polymerisation does not occur.

11. Toxicological Information

Component analysis - LC50

Ingredient(s)	LC50
Nonyl phenoxy polyethoxy ethanol, branched	Not available
Sodium hydroxide	Not available

Component analysis - Oral LD50

Ingredient(s)	LD50
Nonyl phenoxy polyethoxy ethanol, branched	1310 mg/kg rat
Sodium hydroxide	140 mg/kg rat

Effects of acute exposure

Eye	May cause chemical burns. May cause blindness.
Skin	May cause chemical burns. Harmful contact may not cause immediate pain.
Inhalation	May cause respiratory tract irritation.
Ingestion	Harmful if swallowed. May cause chemical burns to mouth, throat and stomach.
Sensitisation	Non-hazardous by WHMIS criteria.
Chronic effects	Non-hazardous by WHMIS criteria.

Carcinogenicity	Non-hazardous by WHMIS criteria.
Mutagenicity	Non-hazardous by WHMIS criteria.
Reproductive effects	Non-hazardous by WHMIS criteria.
Teratogenicity	Non-hazardous by WHMIS criteria.

12. Ecological Information

Ecotoxicity effects Components of this product have been identified as having potential environmental concerns.

Ecotoxicity - Freshwater Fish Species Data

Sodium hydroxide 1310-73-2 96 Hr LC50 Oncorhynchus mykiss: 45.4 mg/L [static]

Environmental effects Harmful to aquatic life.

Aquatic toxicity Not available

Persistence and degradability Not available

Bioaccumulation/accumulation Not available

Partition coefficient Not available

Mobility in environmental media Not available

Chemical fate information Not available

13. Disposal Considerations

Waste codes Not available

Disposal instructions Dispose in accordance with all applicable regulations.

Waste from residues / unused products Not available

Contaminated packaging Not available

14. Transport Information

Transportation of Dangerous Goods (TDG)

Basic shipping requirements:

Proper shipping name	SODIUM HYDROXIDE SOLUTION
Hazard class	8
UN number	UN1824
Packing group	II



15. Regulatory Information

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

Canada - WHMIS - Ingredient Disclosure List

Sodium hydroxide 1310-73-2 1 %

WHMIS classification Class E - Corrosive Material

WHMIS status Controlled

WHMIS labeling



Inventory Status

Country(s) or region	Inventory Name	On Inventory (Yes/No)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No

16. Other Information

Disclaimer

Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.

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