

SECTION 1 - IDENTIFICATION

Product identifier/Trade name: V-280

Other means of identification: V280

Recommended use: Chlorinated liquid dish detergent for use in industrial automatic dishwashers.

Restriction on use: For industrial, institutional and food plants use only.

Initial supplier identifier: Chemotec (PM) Inc.
8820 Place Ray-Lawson
Anjou, Quebec, Canada H1J 1Z2
Phone: (514) 729-6321; 1-800-729-6321

Emergency phone number: (613) 996-6666 (CANUTEC)

SECTION 2 - HAZARDS IDENTIFICATION**2a GHS (Globally Harmonized System) classification****This product is classified as:**

Skin Corrosion/Irritation — category 1
Serious eye damage/eye irritation — category 1

2b Label elements**Pictogram**

Signal word Danger

Hazard statements

H314: Causes severe skin burns and eye damage.

Precautionary statements

Do not breathe mists. Wash hands thoroughly after handling. Wear rubber gloves, protective clothing, eye or face protection.

IF SWALLOWED: Rinse mouth. DO NOT induce vomiting. Immediately call a POISON CENTER or doctor.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and

easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.

IF ON SKIN or hair: Take off immediately all contaminated clothing. Rinse skin with water or shower. Immediately call a POISON CENTER or doctor. Wash contaminated clothing before reuse.

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor.

Storage: Store locked up. Keep only in original packaging.

Disposal: Dispose of contents and container in accordance with local, provincial, and federal regulations.

SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

Ingredients	CAS #	% (weight)	GHS CLASSIFICATION
Sodium hydroxide	1310-73-2	1-5	Skin Corrosion/Irritation Category 1A. Eye damage/Irritation Category 1 Corrosive to metals Category 1.
Alcohol ethoxylate	6834-92-0	1-5	Eye damage/Irritation Category 2B
Disodium Trioxosilicate or disodium oxosilanediolate	68131-39-5	1-5	Skin Corrosion/Irritation Category 1B. Eye damage/Irritation Category 1 Specific target organ toxicity (single exposure) Category 3. Corrosive to metals Category 1.
Potassium hydroxide	1310-58-3	10-30	Skin Corrosion/Irritation Category 1A. Eye damage/Irritation Category 1 Corrosive to metals Category 1.
Sodium hypochlorite or Javel	7681-52-9	1-5	Skin Corrosion/Irritation Category 1. Eye damage/Irritation Category 1

The actual concentrations are withheld as a trade secret.

SECTION 4 - FIRST AID MEASURES

4a Description of first aid measures

Eye contact:

Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses if present and easy to do. Continue to rinse for at least 20 minutes. If irritation persists, continue rinsing. Chemical burns must be treated promptly by a physician. Immediately call a POISON CENTER or doctor.

Skin contact:

Rinse immediately contaminated skin for at least 20 minutes or more if necessary. While rinsing, remove all contaminated clothing, jewelry and shoes. Immediately call a POISON CENTER or doctor. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Inhalation:

Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor.

Ingestion:

Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, get him to drink plenty of water to dilute product. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs spontaneously, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

4b Most important symptoms and effects

The most important known symptoms and effects are described in the labelling (section 2b) and/or in section 11.

4c Immediate medical attention and special treatment needed.

No data available.

SECTION 5 - FIRE FIGHTING MEASURES

5a Extinguishing media

Suitable extinguishing media:

Water (if possible, avoid powerful sprays), foam, dry chemicals, carbon dioxide. Product itself is not flammable.

Unsuitable extinguishing media:

None known.

Specific hazards for product

Hazardous combustion products:

Oxides of carbon, nitrogen, chlorine, and other irritating gases.

Special protective equipment and precautions for firefighters

Special fire-fighting procedures/equipment:

During a fire, irritating smoke and fumes may be generated. A self-contained breathing apparatus is required for fire-fighting personnel to protect themselves from irritating products produced during the combustion. Move containers from fire area if it can be done without risk. A stream of water directed into the product generates a lot of foam.

SECTION 6 - ACCIDENTAL RELEASE MEASURES
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6a Personal precautions, protective equipment and emergency procedures

Personal protection:

Avoid contact with eyes and skin. Use adequate aeration and ventilation. The floor will be slippery in case of a spill. Use appropriate personal protection equipment (see section 8)

6b Methods and materials for containment and cleaning:

Stop the leak. For large spills, pump the product into drums or clean up spills using absorbent material. Resume cleaning by rinsing with water. Caution: floors will be slippery.

6c Environmental precautions:

Product is biodegradable but is corrosive. Do not let go to the sewers.

SECTION 7 - HANDLING AND STORAGE

7a Precautions for Safe handling:

Avoid contact with eyes and skin. Wear rubber gloves, protective clothing and eye or face protection. Always add product to water. Use cold water to prevent excessive heat generation.

7b Condition for safe storage:

Store in a sealed container in a well-ventilated place. Do not store food products. Keep from freezing.

7c Special packaging materials: Store in its original container made of polyethylene. Material may be corrosive to certain metals like aluminium among others.

SECTION 8 - EXPOSURE CONTROLS AND PERSONAL PROTECTION
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8a Control parameters

	Ontario Time-weighted Average Limit (TWA)	Ontario Short-Term Exposure Limit (STEL)	Notations
Sodium hydroxide	C 2 mg/m ³		
Potassium hydroxide	C 2 mg/m ³		

8b Engineering controls:

Provide adequate ventilation.

8c Individual protection measures

Respiratory Protection:

Not required under normal applications.

Respirator NIOSH/MSHA approved if large spill and lack of ventilation or if formation of mists.

Skin protection and other protective equipment:

Plastic or rubber gloves recommended. Protective clothing. Waterproof boots in case of spills.

Eye / face protection:

Eye protection or face protection.

General hygiene considerations:

KEEP OUT OF REACH OF CHILDREN. Avoid contact with eyes and skin. Never eat, drink, or smoke in work areas. Good hygiene is recommended after use of this product.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical state

Cloudy liquid.

Colour

Clear to Cloudy liquid

Odour

Hypochlorite scent

Melting point and freezing point

Approximately 0 °C

Boiling point:

Approximately 100 °C

Flammability

N/A

Lower and upper flammability limit

N/A

Flash point

None to boil

Auto-ignition temperature

N/A

Decomposition temperature

N/A

pH

12-13

Viscosity:

<10 cps @ 25 °C

Solubility in water:	Miscible
Partition coefficient – n-octanol/water	N/A
Vapour pressure (mm Hg)	Approximately 20 (water)
Specific gravity or density (water = 1 at 4 °C):	1.22 g/cm ³ @ 25 °C
Relative vapour density	Approximately 0.6 (water)
Particle characteristics	N/A

SECTION 10 - STABILITY AND REACTIVITY

10a Reactivity:

Not applicable when used as directed. It is incompatible with some materials, see below.

10b Chemical stability :

Stable at room temperature, in normal handling and storage conditions.

10c Possibility of hazardous reactions:

May react with strong acids, strong oxidizing agents and aluminium and other soft metals like zinc. When dissolving in water, heat is generated which could lead to spurting of the corrosive product if agitation is insufficient.

10d Conditions to avoid:

Avoid contact with strong acids, strong oxidizers and soft metals like aluminium, zinc, etc.

10e Incompatible materials

Strong acids, strong oxidizers, soft metals

10f Hazardous decomposition products:

With strong acids or oxidizers: toxic and irritant chlorine gas, heat, water vapors. With soft metals like aluminium, flammable and explosive hydrogen gas.

SECTION 11 - TOXICOLOGICAL INFORMATION

Primary entry route(s): Eye and ingestion.

Eye: Extremely corrosive product. May cause burns, irritation, redness, tears, burning sensation.

Skin: May cause sever irritation and burns on skin, necrosis of cutaneous tissues.

Inhalation: Corrosive product. Breathing high concentrations may cause headache, nausea, vomiting, dizziness and burns of respiratory tract.

Ingestion: Corrosive product. Violent pain in throat, mouth, gut, oesophagus and/or stomach perforation, collapse, possible death.

Carcinogenicity:

No ingredient listed by IARC as a possible carcinogen.

Teratogenicity, mutagenicity, other reproductive effects: No applicable information found.

Skin sensitization: Ingredients not sensitizing

Respiratory tract sensitization: Not available

Synergistic materials: Not available

Other important hazards: Not available

Toxicological data: The calculated LD₅₀ for this product is greater than 1,500 mg/Kg, oral, rat; our products are not tested on animals. However for corrosive materials, the estimated toxicity is not relevant.

Ingredient	LD ₅₀ (route, species)	LC ₅₀ # hours (species)
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Sodium hydroxide	325 mg/kg (oral, rat)	Not available
Potassium hydroxide	333 mg/kg (oral, rat)	Not available
Disodium Trioxosilicate or disodium oxosilanediolate	847 mg/kg (oral, rat)	Not available
Sodium hypochlorite	1,100 mg/kg (oral, rat) 900 mg/kg (dermal, rabbit)	Not available

For more details, refer to Section 3.

SECTION 12 - ECOLOGICAL INFORMATION

12a Ecotoxicity :

TOXICITY (Fish)	Results	Exposure time	Method
Sodium hydroxide	Gambusia affinis 125 mg/L	96H	Not available
Potassium hydroxide	Gambusia affinis 80 mg/L	96H	Not available
Disodium Trioxosilicate or disodium oxosilanediolate	Leucisus idus >146 mg/L	96H	Not available
Sodium hypochlorite	0.05 mg/L	120 H	Not available

TOXICITY (Daphnia)	Results	Exposure time	Method
Sodium hydroxide	40.4 mg/L	48H	Not available
Potassium hydroxide	Not available	48H	Not available
Disodium Trioxosilicate or disodium oxosilanediolate	EC50 >146 mg/L	24H	Not available
Sodium hypochlorite	0.026-0.141 mg/L	48H	Not available

TOXICITY (Algae)	Results	Exposure time	Method
Sodium hydroxide	Not available		
Potassium hydroxide	Not available	72H	Not available
Disodium Trioxosilicate or disodium oxosilanediolate	Desmodesmus subspicatus 207 mg/L	72H	Not available

Sodium hypochlorite	0.0183-0.0365 mg/L	72H	Not available
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12b Persistence and degradability:	Biodegradability does not apply as product does not contain organic compounds and it contains a low level of phosphorus.
12c Bioaccumulation potential:	Not available
12d Mobility in soil:	There is no test data on this product.
12e Other adverse effect	No applicable information found

SECTION 13 - DISPOSAL CONSIDERATIONS

Eliminate according to federal, provincial and local regulations.

SECTION 14 - TRANSPORTATION INFORMATION

Transportation of Dangerous Goods:

UN number	UN3266
Proper shipping name:	Corrosive liquid basic, inorganic, N.O.S. (Potassium hydroxide)
Class:	8
Packing group:	II
Special case:	

SECTION 15 - REGULATORY INFORMATION

In Canada

WHMIS information:

Product is regulated according to the *Hazardous Products Regulations* (HPR) in Canada. This product has been classified in accordance with the hazard criteria of the HPR and this MSDS contains all the information required by the HPR.

WHMIS Classification: See section 2a.

CEPA information: Ingredients are listed on the DSL inventory.

SECTION 16 - OTHER INFORMATION

Date of latest revision 2023-06-13

References:

1. Manufacturer'/suppliers' MSDS.
2. Occupational Exposure Limits for Ontario Workplaces required under Regulation 833
3. International Agency for Research on Cancer Monographs
4. The European Chemicals Agency (ECHA) website.

Abbreviations:

ACGIH	American Conference of Governmental Industrial Hygienists
CAS	Chemical Abstract Service
CEPA	Canadian Environmental Protection Act
cps	Centipoises
DSL	Domestic Substance List
HMIS	Hazardous Material Information System
IARC	International Agency for Research on Cancer
LC	Lethal concentration
LD	Lethal Dosage
N/Av	Not available
N/Ap	Not Applicable
NFPA	National Fire Protection Association
NIOSH	National Institute for Occupational Safety and Health
NTP	National Toxicology Program (U.S.A.)
OSHA	Occupational Safety and Health Administration (U.S.A.)
PEL	Permissible Exposure Limit
TLV	Threshold Limit Value
WHMIS	Workplace Hazardous Materials Information System

End of the MSDS