Material Safety Data Sheet

Vortex Revised

1 . Product and company identification

Common name	: **Vortex Revised**	
Code	: 000124	
Material uses	: Liquid laundry detergent.	
Supplier/Manufacturer	: Dober Group 14461 S. Waverly Ave. Midlothian, IL 60445	
In case of emergency	: ChemTel : 1-813-248-0585 / 1-800-255-3924	
MSDS authored by:	: Kemika XXI Inc. + 1-450-435-7475	08/01/2006

2 . Hazards identification

Physical state : Liquid.

Odor : Odorless.

Color : White.

Hazard status : This material is classified hazardous under OSHA regulations in the United States, the WHMIS Controlled Product Regulation in Canada and the NOM-018-STPS-2000 in Mexico.

Emergency overview : WARNING!

CANCER HAZARD.
CONTAINS MATERIAL WHICH CAN CAUSE CANCER.
CAUSES EYE AND SKIN IRRITATION.
MAY CAUSE ALLERGIC SKIN REACTION.
MAY BE HARMFUL IF SWALLOWED.

Do not ingest. Avoid contact with skin and clothing. Wash thoroughly after handling. Risk of cancer depends on duration and level of exposure.

Routes of entry : Dermal contact. Eye contact. Inhalation. Ingestion.

Potential acute health effects

Eyes : Irritating to eyes.

Skin : Irritating to skin. May cause sensitization by skin contact.

Inhalation : No known significant effects or critical hazards.

Ingestion : May be harmful if swallowed.

Potential chronic health effects : Carcinogenic effects Classified A4 (Not classifiable for humans or animals.) by ACGIH, 3 (Not classifiable for humans.) by IARC [Hydrogen Chloride]. Classified 2B (Possible for humans.) by IARC [Glycine, n,n-bis(carboxymethyl)-, trisodium salt].
Mutagenic effects Not available.
Teratogenic effects Not available.

Medical conditions aggravated by over-exposure : Repeated or prolonged exposure is not known to aggravate any medical condition.

See toxicological information (section 11)

Composition/information on ingredients

United States

Name	CAS number	%
Tetrasodium EDTA	64-02-8	1 - 5
Dinonylphenyl polyoxyethylene	9014-93-1	1 - 5
Polyethylene oxide	25322-68-3	1 - 5
Glycine, n,n-bis(carboxymethyl)-, trisodium salt	5064-31-3	0.1 - 0.5

Canada

Name	CAS number	%
Tetrasodium EDTA	64-02-8	1 - 5
Dinonylphenyl polyoxyethylene	9014-93-1	1 - 5
Glycine, n,n-bis(carboxymethyl)-, trisodium salt	5064-31-3	0.1 - 0.5

Mexico

Name	UN number	IDLH	Classification H	F	R	Special	CAS number	%
Tetrasodium EDTA	Not regulated.	-	1	0	0		64-02-8	1 - 5
Dinonylphenyl polyoxyethylene	Not regulated.	-	1	0	0		9014-93-1	1 - 5
Glycine, n,n-bis (carboxymethyl)-, trisodium	UN3262	-	3	0	0		5064-31-3	0.1 - 0.5

4 . First aid measures

Eye contact : Check for and remove any contact lenses. In case of contact with eyes, rinse immediately with plenty of water. Get medical attention if symptoms occur.

Skin contact : Wash with soap and water. Get medical attention if symptoms occur.

Inhalation : If inhaled, remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms appear.

Ingestion : Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.

Notes to physician : No specific antidote. Medical staff must contact Poison Control Center.

5 . Fire-fighting measures

Flammability of the product : May be combustible at high temperature.

Products of combustion : These products are carbon oxides, nitrogen oxides. Some metallic oxides.

Extinguishing media

Suitable : Use an extinguishing agent suitable for the surrounding fire.

Not suitable : None known.

Special exposure hazards : Not available.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Accidental release measures

Personal precautions : Immediately contact emergency personnel. Keep unnecessary personnel away. Use suitable protective equipment.

Environmental precautions : Avoid dispersal of spilled material, runoff and contact with soil, waterways, drains and sewers.

Methods for cleaning up : If emergency personnel are unavailable, contain spilled material. For small spills, add absorbent (soil may be used in the absence of other suitable materials), scoop up material and place in a sealable, liquid-proof container for disposal. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Place spilled material in an appropriate container for disposal.

7 . Handling and storage

Handling : Do not ingest. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

Storage : Keep container tightly closed. Keep container in a cool, well-ventilated area.

8 . Exposure controls/personal protection

United States	
Product name	**Exposure limits**
Polyethylene oxide	**AIHA WEEL (United States, 1/2005).** TWA: 10 mg/m³ 8 hour(s). Form: Aerosol.

Engineering measures : Use only with adequate ventilation. If user operations generate dust, fumes, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Personal protection

Eyes : Safety glasses.

Skin : Lab coat.

Respiratory : A respirator is not needed under normal and intended conditions of product use.

Hands : Natural rubber (latex).

HMIS Code/Personal protective equipment : B

Personal protection in case of a large spill : Safety glasses, goggles or face shield. Impervious gloves. Full suit. Boots. Wear NIOSH-approved self-contained breathing apparatus or equivalent and full protective gear. Wash hands, forearms and face thoroughly after handling compounds and before eating, smoking and using the lavatory and at the end of the day. Follow good industrial hygiene practice.

9 . Physical and chemical properties

Physical state : Liquid.

Flash point : Closed cup: >93.33°C (200°F).(Pensky-Martens.)

Color : White.

: Odorless.

: 11.5 to 12.5 [Basic.]

Boiling/condensation point : 100°C (212°F)

[illegible]ing/freezing point	: May start to solidify at 0°C (32°F) based on data for: Water.
[illegible]ative density	: 1.04 (Water = 1)
Vapor pressure	: The highest known value is 2.3 kPa (17.5 mm Hg) (at 20°C) (Water).
Vapor density	: The highest known value is 0.62 (Air = 1) (Water).
Volatility	: 41.3 to 41.7% (v/v)
Evaporation rate	: 0.36 (Water) compared with Butyl acetate.
VOC	: 1030.53 (g/l).
Viscosity	: Dynamic: 200 cP
Solubility	: Miscible in water.

10 . Stability and reactivity

Stability and reactivity	: The product is stable.
Incompatibility with various substances	: Reactive with oxidizing materials and acids.
Hazardous polymerization	: Will not occur.
Conditions of reactivity	: Not available.

11 . Toxicological information

Toxicity data

Product/ingredient name	Test	Result	Route	Species
Polyethylene oxide	LD50	600 mg/kg	Oral	Rat
	LD50	1054 mg/kg	Oral	Rat
	LD50	27500 mg/kg	Oral	Rat
[illegible]ne, n,n-bis(carboxymethyl)-, trisodium salt	LD50	1100 mg/kg	Oral	Rat
	LD50	681 mg/kg	Oral	Mouse

Acute Effects

Eyes	: Irritating to eyes.
Skin	: Irritating to skin. May cause sensitization by skin contact.
Inhalation	: No known significant effects or critical hazards.
Ingestion	: May be harmful if swallowed.
Potential chronic health effects	: Carcinogenic effects: Classified A4 (Not classifiable for humans or animals.) by ACGIH, 3 (Not classifiable for humans.) by IARC [Hydrogen Chloride]. Classified 2B (Possible for humans.) by IARC [Glycine, n,n-bis(carboxymethyl)-, trisodium salt]. Mutagenic effects: Not available. Teratogenic effects: Not available.

12 . Ecological information

Ecotoxicity data

Product/ingredient name	Species	Period	Result
Tetrasodium EDTA	Lepomis macrochirus (LC50)	96 hour(s)	486 mg/l
	Lepomis macrochirus (LC50)	96 hour(s)	1030 mg/l
	Lepomis macrochirus (LC50)	96 hour(s)	2070 mg/l
	Lepomis macrochirus (LC50)	96 hour(s)	3092 mg/l
Polyethylene oxide	Oncorhynchus mykiss (LC50)	96 hour(s)	>20000 mg/l

Environmental precautions	: No known significant effects or critical hazards.
[illegible]ucts of degradation	: These products are carbon oxides and water, nitrogen oxides. Some metallic oxides.
[illegible]xicity of the products of biodegradation	: The products of biodegradation are more toxic than the original product.

. Disposal considerations

Waste disposal : The generation of waste should be avoided or minimized wherever possible. Avoid dispersal of spilled material, runoff and contact with soil, waterways, drains and sewers. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional and local authority requirements.

14 . Transport information

Regulatory information

UN/ IMDG/ IATA DOT/ TDG : Not regulated.

15 . Regulatory information

United States

HCS Classification : Irritating material
Sensitizing material
Carcinogen
Target organ effects

U.S. Federal regulations : TSCA 8(a) PAIR: Nonylphenol polyethylene glycol ether
TSCA 8(b) inventory: All components listed.
SARA 302/304/311/312 extremely hazardous substances: No products were found.
SARA 302/304 emergency planning and notification: No products were found.
SARA 302/304/311/312 hazardous chemicals: Tetrasodium EDTA
SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Tetrasodium EDTA: Immediate (acute) health hazard
Clean Water Act (CWA) 307: No products were found.
Clean Water Act (CWA) 311: Sodium hydroxide; Hydrogen Chloride
Clean Air Act (CAA) 112 accidental release prevention: Hydrogen Chloride
Clean Air Act (CAA) 112 regulated flammable substances: No products were found.
Clean Air Act (CAA) 112 regulated toxic substances: Hydrogen Chloride

State regulations : California prop. 65: No products were found.

Canada

WHMIS (Canada) : Class D-2A: Material causing other toxic effects (Very toxic).
Class D-2B: Material causing other toxic effects (Toxic).

CEPA DSL: All components listed, except below.
CEPA NDSL: Glycine, n,n'-1,2-ethanediylbis-, disodium salt

This product has been classified in accordance with the hazard criteria of the Canadian CPR, the United States OSHA and the Mexican NOM -018-STPS-2000. This MSDS contains all the information required by the CPR, OSHA, the American National Standard Institute (ANSI) Z400.1 and NOM -018-STPS-2000.

Mexico

Classification :

HAZARD RATINGS

4- Extreme
3- Serious
2- Moderate
1- Slight
0- Minimal

ernational lists : This product, (and its ingredients) is (are) listed on national inventories, or is (are) exempted from being listed, Australia (AICS), in Europe (EINECS/ELINCS), in Korea (TCCL), in Japan (METI), in the Philippines (RA6969).

16 . Other information

Label requirements (U.S.A.) : CANCER HAZARD.
CONTAINS MATERIAL WHICH CAN CAUSE CANCER.
CAUSES EYE AND SKIN IRRITATION.
MAY CAUSE ALLERGIC SKIN REACTION.
MAY BE HARMFUL IF SWALLOWED.

Hazardous Material Information System (U.S.A.) :

HMIS RATING

Health	*	1
[illegible]		1
		0
Personal protection		B

HAZARD RATINGS

4- Extreme
3- Serious
2- Moderate
1- Slight
0- Minimal
See section 8 for more detailed information on personal protection.

National Fire Protection Association (U.S.A.) :

References : ANSI Z400.1, MSDS Standard, 2004. - Manufacturer's Material Safety Data Sheet. - 29CFR Part1910.1200 OSHA MSDS Requirements. - 49CFR Table List of Hazardous Materials, UN#, Proper Shipping Names, PG. - Canada Gazette Part II, Vol. 122, No. 2. Registration SOR/88-64, 31 December 1987. Hazardous Products Act "Ingredient Disclosure List" - Canadian Transport of Dangerous Goods, Regulations and Schedules, Clear Language version 2005. - Official Mexican Standards NOM-018-STPS-2000 and NOM-004-SCT2-1994.

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Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.