Safety Data Sheet FW2264C

1. Product and company identification

Product name : FW2264C

Material uses : Industrial applications: Foaming agents

Internal code: OFS3258System code: OFS3258Date of issue/Date of revision: 2020-12-04Date of previous issue: 2020-10-27Version: 1.03

Supplier : Highline Energy Services

2264 G Road

Grand Junction, CO 81505

Information contact : +1 970 628-6507 **Emergency phone**: : +1 970 628-6507

Section 2. Hazards identification

OSHA/HCS status

 This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture

: FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 SERIOUS EYE DAMAGE - Category 1

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (eyes) - Category 1 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (kidneys) -

Category 2

GHS label elements

Hazard pictograms



Signal word : Danger

Hazard statements: H226 - Flammable liquid and vapor.

H302 + H312 + H332 - Harmful if swallowed, in contact with skin or if inhaled.

H318 - Causes serious eye damage. H370 - Causes damage to organs. (eyes)

H373 - May cause damage to organs through prolonged or repeated exposure. (kidneys)

Precautionary statements

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Section 2. Hazards identification

Prevention

- : P280 Wear protective gloves. Wear eye or face protection. Wear protective clothing.
 - P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 - P241 Use explosion-proof electrical, ventilating, lighting and all material-handling equipment.
 - P242 Use only non-sparking tools.
 - P243 Take precautionary measures against static discharge.
 - P233 Keep container tightly closed.
 - P271 Use only outdoors or in a well-ventilated area.
 - P260 Do not breathe vapor.
 - P270 Do not eat, drink or smoke when using this product.
 - P264 Wash hands thoroughly after handling.

Response

: P314 - Get medical attention if you feel unwell.

P307 + P311 - IF exposed: Call a POISON CENTER or physician.

P304 + P340 + P312 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell.

P301 + P312 + P330 - IF SWALLOWED: Call a POISON CENTER or physician if you

feel unwell. Rinse mouth.

P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.

P302 + P352 + P312 + P362+P364 - IF ON SKIN: Wash with plenty of soap and water. Call a POISON CENTER or physician if you feel unwell. Take off contaminated clothing and wash it before reuse.

P305 + P351 + P338 + P310 - 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 physician.

Storage

- : P405 Store locked up.
 - P403 Store in a well-ventilated place.
 - P235 Keep cool.

Disposal

: P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazards not otherwise classified

: None known.

Target organs

: Contains material which causes damage to the following organs: blood, kidneys, liver, lymphatic system, upper respiratory tract, skin, central nervous system (CNS), eye, lens or cornea.

Contains material which may cause damage to the following organs: gastrointestinal tract.

See toxicological information (Section 11)

Section 3. Composition/information on ingredients

Substance/mixture

: Mixture

Ingredient name	%	CAS number
methanol	15 - 30	67-56-1
2-butoxyethanol; butyl cellosolve	5 - 9.99	111-76-2
2-[2-(2-butoxyethoxy)ethoxy]ethanol	5 - 9.99	143-22-6
ethanediol; ethylene glycol	5 - 9.99	107-21-1

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

Additional information

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Section 3. Composition/information on ingredients

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact

: Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.

Inhalation

: Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. 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.

Skin contact

: Get medical attention immediately. Call a poison center or physician. Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion

: Get medical attention immediately. Call a poison center or physician. Remove dentures if any. Wash out mouth with water. Stop if the exposed person feels sick as vomiting may be dangerous. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, 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.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Causes serious eye damage.

Inhalation: Harmful if inhaled.

Skin contact: Harmful in contact with skin.

Ingestion: Harmful if swallowed.

Over-exposure signs/symptoms

Eye contact: Adverse symptoms may include the following:

pain watering redness

Inhalation : No specific data.

Section 4. First aid measures

Skin contact : Adverse symptoms may include the following:

> pain or irritation redness

blistering may occur

Ingestion : Adverse symptoms may include the following:

stomach pains

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician

: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments

: No specific treatment.

Protection of first-aiders

No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing

media

Unsuitable extinguishing

media

Specific hazards arising from the chemical

Hazardous thermal decomposition products

Special protective actions for fire-fighters

Special protective equipment for fire-fighters

Flash point

: Use dry chemical, CO₂, water spray (fog) or foam.

: Do not use water jet.

: Flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.

: Decomposition products may include the following materials: carbon dioxide carbon monoxide

: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

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

: Closed cup: 28.889°C (84°F)

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders:

If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For nonemergency personnel".

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Section 6. Accidental release measures

Environmental precautions

: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill

: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill

: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures

: Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in a segregated and approved area. Store in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10). Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Section 8. Exposure controls/personal protection

Ingredient name	Exposure limits
methanol	ACGIH TLV (United States, 3/2019). Absorbed through skin. TWA: 200 ppm 8 hours. TWA: 262 mg/m³ 8 hours. STEL: 250 ppm 15 minutes. STEL: 328 mg/m³ 15 minutes. OSHA PEL 1989 (United States, 3/1989). Absorbed through skin.
	TWA: 200 ppm 8 hours. TWA: 260 mg/m³ 8 hours. STEL: 250 ppm 15 minutes. STEL: 325 mg/m³ 15 minutes. NIOSH REL (United States, 10/2016). Absorbed through skin. TWA: 200 ppm 10 hours. TWA: 260 mg/m³ 10 hours. STEL: 250 ppm 15 minutes. STEL: 325 mg/m³ 15 minutes. OSHA PEL (United States, 5/2018). TWA: 200 ppm 8 hours. TWA: 260 mg/m³ 8 hours.
2-butoxyethanol; butyl cellosolve	OSHA PEL 1989 (United States, 3/1989). Absorbed through skin.
	TWA: 25 ppm, 0 times per shift, 8 hours. TWA: 120 mg/m³, 0 times per shift, 8 hours. NIOSH REL (United States, 10/2016). Absorbed through skin. TWA: 5 ppm, 0 times per shift, 10 hours. TWA: 24 mg/m³, 0 times per shift, 10 hours. ACGIH TLV (United States, 3/2019). TWA: 20 ppm, 0 times per shift, 8 hours. OSHA PEL (United States, 5/2018). Absorbed through skin. TWA: 50 ppm, 0 times per shift, 8 hours. TWA: 240 mg/m³, 0 times per shift, 8 hours.
ethanediol; ethylene glycol	OSHA PEL 1989 (United States, 3/1989). CEIL: 50 ppm, 0 times per shift, 0 hours. CEIL: 125 mg/m³, 0 times per shift, 0 hours. ACGIH TLV (United States, 3/2018). STEL: 10 mg/m³ 15 minutes. Form: Inhalable fraction. Aerosol only. STEL: 50 ppm 15 minutes. Form: Vapor fraction TWA: 25 ppm 8 hours. Form: Vapor fraction

Appropriate engineering controls

: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls

: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

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Section 8. Exposure controls/personal protection

Hygiene measures

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/ or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Skin protection

Hand protection

: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection

: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear antistatic protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other skin protection

: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection

: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.

Color : Clear, Colorless.

Odor : Solvent.

Odor threshold : Not available.

pН : 8 to 8.5

: -40°C (-40°F) **Melting point/freezing point**

Boiling point : Lowest known value: 64.7°C (148.5°F) (methanol). Weighted average: 103.54°C (218.

4°F)

: Closed cup: 28.889°C (84°F) Flash point

: Highest known value: 2.1 (methanol) Weighted average: 1.34compared with butyl **Evaporation rate**

acetate

Flammability (solid, gas)

: Not available.

Lower and upper explosive (flammable) limits

: Greatest known range: Lower: 6% Upper: 44% (methanol)

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Section 9. Physical and chemical properties

Vapor pressure : Highest known value: 16.9 kPa (127 mm Hg) (at 20°C) (methanol). Weighted average:

6.85 kPa (51.38 mm Hg) (at 20°C)

Vapor density : Highest known value: 4.07 (Air = 1) (2-butoxyethanol). Weighted average: 1.97 (Air =

1)

Density : 0.98 g/cm³ **Specific gravity** 0.98

Density 8.17 lbs/gal

Solubility : Easily soluble in the following materials: cold water, hot water.

Partition coefficient: n-

octanol/water

Not available.

Auto-ignition temperature

: Lowest known value: 202°C (395.6°F) (Poly(oxy-1,2-ethanediyl), α-butyl-ω-hydroxy-).

Decomposition temperature : Not available. : Not available. **Viscosity**

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous

reactions

Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld,

braze, solder, drill, grind or expose containers to heat or sources of ignition.

Incompatible materials Reactive or incompatible with the following materials:

oxidizing materials

Hazardous decomposition

products

: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Test	Species	Result	Dose
methanol	-	Rat	LC50 Inhalation Gas.	145000 1 hours ppm
	-	Rat	LC50 Inhalation Gas.	64000 ppm 4 hours
	-	Rabbit	LD50 Dermal	15800 mg/ - kg
	-	Rat	LD50 Oral	5600 mg/kg -
2-butoxyethanol; butyl cellosolve	-	Rat	LD50 Oral	250 mg/kg -
ethanediol; ethylene glycol	-	Rat	LD50 Oral	4700 mg/kg -

Potential chronic health effects

Not available.

Irritation/Corrosion

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Section 11. Toxicological information

Product/ingredient name	Test	Species	Result
2-butoxyethanol; butyl cellosolve	-	Rabbit	Eyes - Moderate irritant -
	-		Eyes - Severe irritant - Skin - Mild irritant -
ethanediol; ethylene glycol	-	Rabbit	Eyes - Mild irritant -
	-		Eyes - Moderate irritant - Skin - Mild irritant -

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Classification

Product/ingredient name	OSHA	IARC	NTP
2-butoxyethanol; butyl cellosolve	-	3	-

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name		Route of exposure	Target organs
methanol	Category 1	Inhalation	eyes

Specific target organ toxicity (repeated exposure)

Name		Route of exposure	Target organs
ethanediol; ethylene glycol	Category 2	Oral	kidneys

Aspiration hazard

Not available.

Section 12. Ecological information

Toxicity

Section 12. Ecological information

Product/ingredient name	Result	Species	Exposure
methanol	Acute EC50 16.912 mg/l Marine water	Algae - Ulva pertusa	96 hours
	Acute EC50 22200 to 23400 mg/l Fresh	Daphnia - Daphnia obtusa -	48 hours
	water	Neonate	
	Acute LC50 2500000 μg/l Marine water	Crustaceans - Crangon crangon - Adult	48 hours
	Acute LC50 100 mg/l Fresh water	Fish - Pimephales promelas -	96 hours
		Juvenile (Fledgling, Hatchling, Weanling)	
	Chronic NOEC 9.96 mg/l Marine water	Algae - Ulva pertusa	96 hours
2-butoxyethanol; butyl cellosolve	Acute EC50 >1000 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 1490 mg/l	Fish	96 hours
	Chronic NOEC 1000 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
ethanediol; ethylene glycol	Acute LC50 1000000000 µg/l Marine water	Crustaceans - Crangon crangon	48 hours
	Acute LC50 13140000 µg/l Fresh water	Daphnia - Ceriodaphnia dubia	48 hours
	Acute LC50 41000 mg/l	Fish	96 hours
	Acute LC50 8050 mg/l	Fish	96 hours
	Acute LC50 >10000 mg/l	Fish	96 hours
	Acute LC50 49000 mg/l	Fish	96 hours
	Acute LC50 53000 mg/l	Fish	96 hours
	Chronic NOEC 11610000 µg/l Fresh water	Daphnia - Ceriodaphnia dubia	48 hours
	Chronic NOEC 6090000 µg/l Fresh water	Fish - Pimephales promelas	96 hours

Persistence and degradability

Product/ingredient name	Test		Result
methanol	OECD 301D Ready Biodegrad	99 % - 28 days	
Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
methanol ethanediol; ethylene glycol	-	-	Readily Readily

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
methanol 2-butoxyethanol; butyl	-0.77 0.83	<10	low low
cellosolve ethanediol; ethylene glycol	-1.93	-	low

Section 13. Disposal considerations

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any byproducts should at all times comply with the requirements of environmental protection and waste disposal legislation and
any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal
contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all
authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when
recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when
handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product
residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do
not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled

Section 13. Disposal considerations

material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	IMDG	IATA
UN number	UN1993	UN1993	UN1993
UN proper shipping name	Flammable liquids, n.o.s. (methanol, solution) RQ (methanol)	FLAMMABLE LIQUID, N.O.S. (methanol, solution). Marine pollutant (Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides)	Flammable liquid, n.o.s. (methanol, solution)
Transport hazard class(es)	3	3	3
Packing group	III	III	III
Environmental hazards	No.	Yes.	Yes. The environmentally hazardous substance mark is not required.
Additional information	Reportable quantity 19861 Ibs / 9016.9 kg [2430.6 gal / 9200.9 L]. Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements. Limited quantity Yes. Packaging instruction Exceptions: 150. Non-bulk: 203. Bulk: 242. Quantity limitation Passenger aircraft/rail: 60 L. Cargo aircraft: 220 L. Special provisions B1, B52, IB3, T4, TP1, TP29	The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg. Emergency schedules F-E, S-E_ Special provisions 223, 274, 955	

Special precautions for user : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Section 15. Regulatory information

U.S. Federal regulations : United States inventory (TSCA 8b): All components are listed or exempted.

Clean Air Act Section 112

(b) Hazardous Air **Pollutants (HAPs) SARA 302/304**

: Listed

Composition/information on ingredients

			SARA 302 TPQ		SARA 304 RQ	
Name	%	EHS	(lbs)	(gallons)	(lbs)	(gallons)
formaldehyde	0 - 0.09	Yes.	500	55	100	11

SARA 304 RQ : 2222222.2 lbs / 1008888.9 kg [271959.4 gal / 1029478.5 L]

SARA 311/312

Classification : Fire hazard

> Immediate (acute) health hazard Delayed (chronic) health hazard

Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
methanol 2-butoxyethanol; butyl cellosolve 2-[2-(2-butoxyethoxy)ethoxy]ethanol ethanediol; ethylene glycol		Yes. Yes. No. No.	No. No. No.	No. No. No. No.	Yes. Yes. Yes. Yes.	No. No. No. Yes.

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	2-butoxyethanol	111-76-2	15 - 30 4.99 - 9.99 4.99 - 9.99
Supplier notification	2-butoxyethanol	111-76-2	15 - 30 4.99 - 9.99 4.99 - 9.99

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

Massachusetts : The following components are listed: METHANOL; 2-BUTOXYETHANOL; ETHYLENE

GLYCOL

New York : The following components are listed: Methanol; Ethylene glycol

New Jersey : The following components are listed: METHYL ALCOHOL; METHANOL; 2-BUTOXY

ETHANOL; BUTYL CELLOSOLVE; ETHYLENE GLYCOL; 1,2-ETHANEDIOL

Pennsylvania The following components are listed: METHANOL; ETHANOL, 2-BUTOXY-; 1,

2-ETHANEDIOL

California Prop. 65

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Section 15. Regulatory information

: **WARNING**: This product can expose you to chemicals including formaldehyde, which is known to the State of California to cause cancer, and Methanol, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level	Contains : ppm (or %)
methanol Formaldehyde, solution	No. Yes.	Yes. No.		Yes.	≥25 - ≤31 <0.1

International lists

National inventory

Australia inventory (AICS)

Canada inventory

China inventory (IECSC)

Europe inventory

Japan inventory

: Not determined.

: Not determined.

Not determined.

Not determined.

: Japan inventory (ENCS): Not determined.

Japan inventory (ISHL): Not determined.

New Zealand Inventory of Chemicals (NZIoC)

Philippines inventory (PICCS)

Korea inventory (KECI)

Taiwan inventory (TCSI)

United States inventory (TSCA 8b)

lanan inventory

Not determined.Not determined.

: Not determined.

: Not determined.

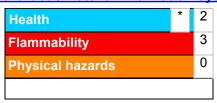
: All components are listed or exempted.

Our REACH (pre-) registrations DO NOT cover the following:

- 1. The manufacture of these products by our company outside the EU unless covered by the Only Representative provisions, and
- 2. The importation of these products into Europe by other companies. Re-importation by other companies is not covered by our (pre-) registrations Customers and other third parties importing and/or re-importing our products into Europe will need either:
- Their own (pre-) registration for substances contained in the imported product, or constituent monomers (imported above 1 tonne per year and >2% by weight) in the case of imported polymers, or
- In the case of importation only, to make use of the "Only Representative" provisions, if available.

Section 16. Other information

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



Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association. Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

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

Section 16. Other information



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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

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Key to abbreviations : ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the

Protocol of 1978. ("Marpol" = marine pollution)

UN = United Nations

Indicates information that has changed from previously issued version.

Notice to reader

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