DX5044

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2021 (HazCom 2021)

Date of issue 08/08/2021 Revision date:08/16/23 Version 5

Section 1: Identification of the substance/ mixture and of the company/undertaking

1.1 Product Identifier

Trade name : DX5044

1.2 Relevant identified uses of the substance or mixture and uses advised against

Sector of use: Product supplied for industrial use only

Use of the substance/mixture: DX5044 is a blend of intended exclusively for commercial use as a component for the manufacture of class B firefighting foam concentrates that are used on flammable liquids.

1.3 Details of the supplier of the safety data sheet

DYNAX CORPORATION
79 Westchester Ave. Pound Ridge NY 10576 USA
Tel: +1 914-764-0202
Fax: +1 914-764-0553
Email info@dynaxcorp.com
Website: www.dynaxcorp.com

1.4 Emergency telephone number

Emergency number: CHEMTREC: +1800-424-9300 24 hours

Section 2: Hazards Identification

2.1 Classification of the substance or mixture

GHS-US Classification

Repr. 1B	H360FD – Suspected of damaging the unborn child
STOT RE 2	H373 - May cause damage to organs (blood, liver, kidneys) through prolonged or repeated exposure (oral)*
Aquatic Chronic 3	H412 Harmful to Aquatic life with long lasting effects

2.2 Label elements

GHS-US Labelling

Hazard Pictogram (GHS-US)

GHS08

Signal word (GHS-US)	Warning
Hazard Statements (GHS-US)	H360FD - May damage fertility. May damage the unborn child. H373 - May cause damage to organs through prolonged or repeated exposure H412 Harmful to Aquatic Life with Long lasting effects
Precautionary statements (GHS-US)	P264 - Wash skin thoroughly after handling P270 - Do not eat, drink or smoke when using this product P273 – Avoid release to the environment P301+P310+P330 - If swallowed: Immediately call a POISON CENTER/doctor. Rinse mouth P362+P364 - Take off contaminated clothing and wash it before reuse P501 - Dispose of contents/container to an approved waste disposal plant (See section 13)
Hazard determining components of labelling	C6 fluorotelomer based surfactant. 2,2'-Iminodiethano Ethylene glycol 2-Methylpentane-2,4-diol

2.3 Other hazards

Results of PBT and vPBT assessment:

PBT	Not applicable
vPvB	Not applicable

2.4 Unknown acute toxicity (GHS-US)

Not applicable

Section 3: Composition/information on ingredients

3.1 Substances

Not applicable

3.1 Mixture

Name	Product identifier	%	GHS-US classification
Ethylene glycol	(CAS No) **107-21-1**	5 - 9	Acute Tox. 4 (Oral), H302 STOT RE 2, H373
Diethylene glycol monobutyl ether	(CAS No) **112-34-5**	2 - 5	Flam. Liq. 4, H227 Eye Irrit. 2A, H319
2,4 Pentanediol, 2-methyl	(CAS No) **107-41-5**	1-3	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Repr.2., H361d
C6 fluorotelomer based surfactant. (Contains per- or poly-fluoroalkyl substances, PFAS)	Proprietary	1 – 3.	Acute Tox. 2, H330 Eye Dam. 1, H318 Repr. 1B, H30FD Aquatic Acute 1, H400 Aquatic Chronic 3, H410 Acute Tox. 4, H302
2,2'-Iminodiethanol*	(CAS-No.) **111-42-2**	1-3	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT RE 2, H373
Methyl alcohol	(CAS No) **67-56-1**	0.5-1	Flam. Liq. 2, H225 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation:vapour), H331 STOT SE 1, H370
Ethanol	(CAS No**) 64-17-5**	0.5-1	Flam. Liq. 2, H225

Full text of H-phrases: see section 16

Section 4: First aid measures

4.1 Description of first aid measures

First-aid measures general: Never give anything by mouth to an unconscious person. IF exposed or concerned: Get medical advice/attention.

First-aid measures after inhalation: Allow victim to breathe fresh air. Allow the victim to rest. In all cases of doubt, or when symptoms persist, seek medical advice.

First-aid measures after skin contact: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.

First-aid measures after eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: get medical advice/attention.

First-aid measures after ingestion: If swallowed, rinse mouth with water (only if the person is conscious). Immediately call a POISON CENTER or doctor/physician. Obtain emergency medical attention.

4.2 Most Important symptom and effects, both acute and delayed

Symptoms/injuries after eye contact: In fine dispersion/spraying/misting: May irritate eyes

4.3 Indication of any immediate medical attention and special treatment needed

No additional information

Section 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: Foam. Dry powder. Carbon dioxide. Water spray. Sand. Fight larger fires with spray or alcohol resistant foam.

Unsuitable extinguishing media: Do not use a heavy water stream.

5.2 Special hazards arising from the substance or mixture.

Explosion hazard: In closed containers, pressure build up could result in distortion, blowing and in extreme cases bursting of the container. Flammable vapors may travel long distances, ignite and flash back to source.

5.3 Advice for firefighters

Firefighting instructions: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

Protective equipment for firefighters: Do not enter fire area without proper protective equipment, including respiratory protection.

Other information: Thermal combustion may release carbon monoxide, carbon dioxide, nitrogen oxides (NOx) and hydrofluoric acid- possibly carbonyl fluoride. Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries. Flammable vapors may travel long distances, ignite and flash back to source.

Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

General measures	Stop leak if safe to do so. Eliminate all ignition sources if safe to do so. Spills of this product present a serious slipping hazard. Avoid breathing mist or vapor. Avoid contact with skin, eyes and clothing. Take precautionary measures against static discharge.

6.1.1 For non-emergency personnel

Emergency procedures	Evacuate unnecessary personnel

6.1.1 For emergency responders

Protective equipment	Equip cleanup crew with proper protection.
Emergency procedures	Ventilate area.

6.2 Environmental precautions

Prevent entry to soil, sewers, public waters and the environment. Notify authorities if liquid enters soil, sewers public waters or the environment.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up	Ensure adequate ventilation. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect all waste in suitable and labelled containers and dispose according to local, state and national legislation. Store away from other materials. Use only non-sparking tools. Take precautionary measures against static discharge. Dispose in a safe manner in accordance with local, state and national regulations. Do not allow to enter into surface water or drains. Ensure all local, state and national regulations are observed.

6.4 Most important symptoms and effects, both acute and delayed

See Heading 8. Exposure controls and personal protection

Section 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Provide good ventilation in process area to prevent formation of vapor. do not handle or store near heat, sparks, or any other potential ignition sources. Take precautionary measures against static discharge. Proper grounding procedures to avoid static electricity should be followed. Use only non-sparking tools. Avoid all eye and skin contact and do not breathe vapor and mist. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.
Hygiene measures	Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Handle in accordance with good industrial hygiene and safety practices.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	A washing facility/water for eye and skin cleaning purposes should be present. Ensure adequate ventilation.
Storage conditions	Keep out of reach of children. Keep only in the original container in a cool, well-ventilated place. Keep container tightly closed and dry. Keep container closed when not in use. Keep away from heat and direct sunlight. Keep away from food and drink.
Incompatible materials	Oxidizing agents. Reducing agents.

7.3. Specific end use(s)

No additional information available

Section 8: Exposure controls/ personal protection

8.1 Control parameters

2,2'-Iminodiethanol (111-42-2)		
ACGIH	ACGIH TWA (mg/m³)	1 mg/m³ (inhalable fraction and vapor)
NIOSH	NIOSH REL (TWA) (mg/m³)	15 mg/m³
NIOSH	NIOSH REL (TWA) (ppm)	3 ppm
2,4-Pentanediol, 2-methyl- (107-41-5)		
ACGIH	ACGIH Ceiling (ppm)	25 ppm
ACGIH	Remark (ACGIH)	Eye & URT irr
NIOSH	NIOSH REL (ceiling) (mg/m³)	125 mg/m³
NIOSH	NIOSH REL (ceiling) (ppm)	25 ppm
Diethylene glycol monobutyl ether (112-34-5)		
ACGIH	ACGIH TWA (ppm)	10 ppm (inhalable fraction and vapor)
Ethylene glycol (107-21-1)		
ACGIH	ACGIH TWA (mg/m³)	10 mg/m³
ACGIH	ACGIH Ceiling (mg/m³)	100 mg/m³ (aerosol only)
ACGIH	Remark (ACGIH)	URT & eye irr

Methyl alcohol (67-56-1		
ACGIH	ACGIH TWA (ppm)	200 ppm
ACGIH	ACGIH STEL (ppm)	250 ppm
OSHA	OSHA PEL (TWA) (mg/m³)	260 mg/m³
OSHA	OSHA PEL (TWA) (ppm)	200 ppm

8.1 Exposure controls

Appropriate engineering controls : Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Personal protective equipment : Avoid all unnecessary exposure. Personal protective equipment should be selected based upon the conditions under which this product is handled or used. Protective goggles. Gloves. Protective clothing. For certain operations, additional Personal Protection Equipment (PPE) may be required.

Hand protection : Wear protective gloves. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Eye protection : Chemical goggles or safety glasses. with side-shields.

Skin and body protection : Long sleeved protective clothing. Antistatic non-skid safety shoes or boots.

Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment. In case of intensive or longer exposure use self-contained apparatus.

Other information : Do not eat, drink or smoke during use.

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	Liquid
Color	Amber
Odor	mild
Odor threshold	No data available
pH	6.0-7.0 at 20°C
Relative evaporation rate (butyl acetate=1)	No data available
Melting point	No data available
Freezing point	No data available
Boiling point	>100°C
Flash point	>100°C non-flammable
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Flammability (solid, gas)	Not applicable
Vapor pressure	No data available
Relative vapor density at 20 °C	No data available
Relative density	No data available
Density	1.16 g/cm³ at 20°C
Solubility	Water: Fully miscible
Log Pow	No data available
Log Kow	No data available
Viscosity, kinematic	No data available
Viscosity, dynamic	No data available
Explosive properties	No data available
Oxidizing properties	No data available
Explosive limits	No data available

9.2 Other information

No additional information available

Section 10: Stability and reactivity

10.1 Reactivity

No additional information available

10.2 Chemical stability

Not established

10.3 Possibility of hazardous reactions

Not established

10.4 Conditions to avoid

Direct sunlight. heat/sparks/open flames/hot surfaces

10.5 Incompatible materials

Oxidizing agents. Reducing agents

10.6 Hazardous decomposition products

Fumes: Carbon monoxide, carbon dioxide, nitrogen oxides (NOx), and hydrofluoric acid- possibly carbonyl fluoride.

Section 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity: Based on the available LD50 values, the classifications are not met.

DX5044		
LD50 oral rat		> 5000 mg/kg (EPA Health Effects Testing Guidelines OPPTS Series)
2,2'-Iminodiethanol (111-42-2)		
LD50 oral rat		0.62 mg/kg
LD50 dermal rabbit		12200 mg/kg
Diethylene glycol monobutyl ether (112-34-5)		
LD50 oral rat		3384 mg/kg
LD50 dermal rabbit		2700 mg/kg
ATE US (oral)		3384 mg/kg bodyweight
ATE US (dermal)		2700 mg/kg bodyweight
Ethylene glycol (107-21-1)		
LD50 oral rat		4000 - 10200 mg/kg
LD50 dermal rat		10600 mg/kg
LD50 dermal rabbit		9530 µL/kg
ATE US (oral)		500 mg/kg bodyweight
ATE US (dermal)		10600 mg/kg bodyweight
methyl alcohol (67-56-1)		
LC50 inhalation rat (ppm)		> 225000 ppm (exposure time 8 h)
ATE US (dermal)		300.0 mg/kg bodyweight
ATE US (vapors)		3.0 mg/L/4h
ATE US (dust, mist)		1.5 mg/L/4h
2,4-Pentanediol, 2-methyl- (107-41-5)		
LD50 oral rat		3700mg/kg
LC50 inhalation rat (mg/L)		>310 mg/m^3 (exposure time 1 h)
ATE US (oral)		3700 mg/kg bodyweight.

Skin corrosion / irritation	This product is not considered irritating to the skin and does not require an H315 statement. Based on available data, the classification criteria are not met According to exiting data (Acute Dermal Irritation in Rabbits; EPA Health Effects Testing Guidelines, OPPTS Series 870.2500, August 1998)
Serious eye damage/ irritation	This product is not considered to be significantly irritating and does not require an H319 statement. Based on available data, the classification criteria are not met According to exiting data (Acute Eye irritation in Rabbits; EPA Health Effects Testing Guidelines, OPPTS Series 870.2500, August 1998)
Respiratory or skin sensitization	Based on available data, the classification criteria are not met
Germ cell mutagenicity	Based on available data, the classification criteria are not met
Carcinogenicity	Based on available data, the classification criteria are not met
Reproductive toxicity	Based on available data, the classification criteria are not met
STOT-Single exposure	Based on available data, the classification criteria are not met
STOT- repeated exposure	May cause damage to organs (blood, liver, kidneys) through prolonged or repeated exposure (oral).
Aspiration hazard	Based on available data, the classification criteria are not met
Symptoms/injuries after inhalation	Not expected to present a significant inhalation hazard under anticipated conditions of normal use.
Symptoms/injuries after skin contact	May cause slight temporary irritation.
Symptoms/injuries after eye contact	In fine dispersion/spraying/misting: causes eye irritation.
Symptoms/injuries after ingestion	Not expected to present a significant ingestion hazard under anticipated conditions of normal use.
Chronic symptoms	Suspected of causing cancer. May cause damage to organs through prolonged or repeated exposure.
Symptoms/injuries after ingestion	Not expected to present a significant ingestion hazard under anticipated conditions of normal use.

Section 12: Ecological information

12.1 Toxicity

DX5044		
LC50 Daphnia 1		385 mg/L (Exposure time: 48 h – Species: Daphnia Magna)
EC50 Daphnia 1		369 mg/L (Exposure time: 48 h – Species: Daphnia Magna)

EC50 Daphnia 1		>1000 mg/L (Exposure time: 24 h – Species: Daphnia Magna)
EC50 Algae		63.5 mg/L (Exposure time: 72 h – Species: Algae)
LOEC Algae		33 mg/L (Exposure time: 72 h – Species: Algae)
2,2'-Iminodiethanol (111-42-2)		
LC50 fish 1		4460 – 4980 mg/l Exposure time: 96 hours, Pimephales promelas; FLOW-THROUGH SYSTEM
EC50 Daphnia 1		55 mg/L Exposure time: 48 hours, Daphnia magna
LC50 fish 2		1200 – 1580 mg/l Exposure time: 96 hours, Pimephales promelas, STATIC SYSTEM
Diethylene glycol monobutyl ether (112-34-5)		
LC50 fish 1		1300 mg/L (Exposure time: 96 h - Species: Lepomis macrochirus [static])
EC50 Daphnia 1		> 100 mg/L (Exposure time: 48 h - Species: Daphnia magna)
Ethylene glycol (107-21-1)		
LC50 fish 1		41000 mg/L (Exposure time: 96 h - Species: Oncorhynchus mykiss)
EC50 Daphnia 1		46300 mg/L (Exposure time: 48 h - Species: Daphnia magna)
LC50 fish 2		14 - 18 ml/L (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])
2,4-Pentanediol, 2-methyl- (107-41-5)		
LC50 fish 1		10500 - 11000 mg/L (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 Daphnia 1		2700 - 3700 mg/L (Exposure time: 48 h - Species: Daphnia magna)
LC50 fish 2		10000 mg/L (Exposure time: 96 h - Species: Lepomis macrochirus [static])

12.2 Persistence and degradability

DX5044		
Persistence and degradability		Fluorinated components of DX5044 are persistent and non-degradable

12.3 Bioaccumulative potential

DX5044		
Bioaccumulative potential		Not established.
Diethylene glycol monobutyl ether (112-34-5)		
BCF fish 1		no bioconcentration expected
Ethylene glycol (107-21-1)		
Log Pow		-1.93
2,2'-Iminodiethanol (111-42-20		
BCF fish 1		(No significant bioconcentration)
Partition coefficient n-octanol/water (Log Pow)		-2.18 at 25°C
2,4-Pentanediol, 2-methyl- (107-41-5)		
Log Pow		< 0.14

12.4 Mobility in soil

This product family shows mobility in soil

12.5 Other adverse effects

Effect on ozone layer	No additional information available
Effect on the global warming	No additional information available
Other information	Avoid release to the environment.

Section 13: Disposal considerations

DX5044 contains PFAS. Local requirements for waste disposal may be more restrictive or otherwise different from national regulations. Therefore, applicable local, state and national regulatory agencies should be contacted regarding disposal of DX1025.

DX5044 contains components that have restricted use under the United States Environmental Protection Agency's (EPA) Toxic Substance Control Act (TSCA) and is subject to a Significant New Use Rules (SNURs).

Disposal of this product and all wastes containing this product must be performed using high temperature incineration at a minimum of 1000°C with a minimum residence time of 2 seconds. See 40 CFR 721.10876, 10877 and 10697 SNURs.

13.1 Waste treatment methods

Waste disposal recommendations	Do not allow to enter into surface water or drains. Disposal of this product and all wastes containing this product must be performed using high temperature incineration at a minimum of 1000°C with a minimum residence time of 2 seconds. See 40 CFR 721.10876, 10877 and 10697 SNURs.
Additional information	Prevent contamination of soil, drains and surface waters. Do not re-use empty containers. Do not allow product to reach sewage system.
Ecology - waste materials	Avoid release to the environment.

Section 14: Transport information

In accordance with DOT	Not regulated for transport

Additional information

Other information: No supplementary information available

ADR
No additional information available
Transport by sea
No additional information available
Air transport
No additional information available

Section 15: Regulatory information

15.1 US Federal regulations

DX5044 contains components that have restricted use under the United States Environmental Protection Agency's (EPA) Toxic Substance Control Act (TSCA) and is subject to a Significant New Use Rules (SNUR). The use of this product is limited to only firefighting foam applications (see section 1.2)

Disposal of this product and all wastes containing this product must be performed using high temperature incineration at a minimum of 1000°C with a minimum residence time of 2 seconds. See 40 CFR 721.10876, 10877 and 10697 SNURs.
AFFF containing DX5044 shall not be used in any manner that causes the uncontrolled release of AFFF, except for purposes of:
a) An emergency response in the event of a significant transportation, military or industrial fire involving flammable fuels or fluids; OR
b) Testing of AFFF equipment that is intended to be used to extinguish flammable fuel or fluid-related fires provided that complete containment, capture, and proper disposal mechanisms are in place to ensure no AFFF is released into the environment as a result of testing.
The use of AFFF containing DX5044 may not be used for training exercises.
When using AFFF containing DX5044 for emergency response, risk mitigation plans must be in place to reduce environmental release and further migration after the fire is extinguished.
Manufacture of DX5044 such that it contains no C8 impurity levels above those allowed.
Disposal of DX5044 waste only by incineration (at a minimum of 1000°C with a minimum residence time of 2 seconds).
No release to surface waters from manufacturing or processing. Releases during use for emergency response must be minimized according to the risk mitigation plan (as specified above).
Ensure downstream users are notified of the provisions stated herein.

Diethylene glycol monobutyl ether (112-34-5)		
Listed on the United States TSCA (Toxic Substances Control Act) inventory		
EPA TSCA Regulatory Flag		T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA. Y2 - Y2 - indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule

Ethylene glycol (107-21-1)		
Listed on the United States TSCA (Toxic Substances Control Act) inventory Listed on United States SARA Section 313		
EPA TSCA Regulatory Flag		Y2 - Y2 - indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.
RQ (Reportable quantity, section 304 of EPA's List of Lists)		5000 lbs.
SARA Section 313 - Emission Reporting		1.0 %

Methyl alcohol (75-65-0)		
RQ (Reportable quantity, section 304 of EPA's List of Lists)		5000 lbs.
SARA Section 313 - Emission Reporting		100 lb

2,4-Pentanediol, 2-methyl- (107-41-5)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

2,2'-Iminodiethanol (111-42-2)		
Listed on the United States TSCA (Toxic Substances Control Act) inventory Listed on United States SARA Section 313		
RQ (Reportable quantity, section 304 of EPA's List of Lists)		100 lbs
SARA Section 313 - Emission Reporting		1.0 %

15.2 International regulations

CANADA

Diethylene glycol monobutyl ether (112-34-5)		
Listed on the Canadian DSL (Domestic Substances List)		
WHMIS Classification		Class B Division 3 - Combustible Liquid Class D Division 2 Subdivision B - Toxic material causing other toxic effects

Ethylene glycol (107-21-1)		
Listed on the Canadian DSL (Domestic Substances List)		
WHMIS Classification		Class D Division 1 Subdivision B - Toxic material causing immediate and serious toxic effects Class D Division 2 Subdivision A - Very toxic material causing other toxic effects
2,4-Pentanediol, 2-methyl- (107-41-5)		
Listed on the Canadian DSL (Domestic Substances List)		
WHMIS Classification		Class D Division 2 Subdivision B - Toxic material causing other toxic effects
2,2'-Iminodiethanol (111-42-2)		
Listed on the Canadian DSL (Domestic Substances List)		
WHMIS Classification		Class D Division 2 Subdivision A - Very toxic material causing other toxic effects Class D Division 2 Subdivision B - Toxic material causing other toxic effects

EU- Regulations

Diethylene glycol monobutyl ether (112-34-5)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
Ethylene glycol (107-21-1)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
2,4-Pentanediol, 2-methyl- (107-41-5)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
2,2'-Iminodiethanol (111-42-2)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Classification according to Regulation (EC) No. 1272/2008 [CLP]

No additional data available

Classification according to Directive 67/548/EEC or 1999/45/EC

No additional data available

15.2.2 National regulations

Diethylene glycol monobutyl ether (112-34-5)
Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) Listed
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Japanese ISHL (Industrial Safety and Health Law)
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on the Canadian IDL (Ingredient Disclosure List)

Ethylene glycol (107-21-1)
Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) Listed
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on the Canadian IDL (Ingredient Disclosure List)

2,4-Pentanediol, 2-methyl- (107-41-5)
Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) Listed
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on the Canadian IDL (Ingredient Disclosure List)

2,2'-Iminodiethanol (111-42-2)
Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) Listed
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Japanese ISHL (Industrial Safety and Health Law)
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on INSQ (Mexican National Inventory of Chemical Substances
Listed on the TCSI (Taiwan Chemical Substance Inventory)

15.3 US State regulations

- Perfluorooctanoic acid (PFOA), a type of PFAS is on California Proposition 65, listed as causing cancer and reproductive toxicity.
- Methanol is on California Proposition 65, listed as causing reproductive toxicity.
- 2,2'-Iminodiethanol is on California Proposition 65, listed as causing cancer
- For more information go to www.p65warnings.ca.gov/

Section 16: Regulatory information

Other information : None

Full Text of H phrases

Acute Tox. 2 (Inhalation)	Acute toxicity (inhalation) Category 2
Acute Tox. 3 (Inhalation)	Acute toxicity (inhalation) Category 3
Acute Tox. 3 (dermal)	Acute toxicity dermal) Category 3
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Acute aquatic toxicity Category 1
Aquatic Chronic 3	Chronic aquatic toxicity Category 3
Eye Dam.1	Serious eye damage Category 1
Eye Irrit. 2A	Serious eye damage/eye irritation, Category 2A
Flam. Liq. 2	Flammable liquids Category 2
Flam. Liq. 4	Flammable liquids Category 4
Repr.2	Reproductive toxicity, Category 2.
Skin Irrit. 2	Skin corrosion/irritation Category 2
STOT RE 2	Specific target organ toxicity (repeat exposure) Category 2
STOT SE 1	Specific target organ toxicity (single exposure) Category 1
H225	Highly flammable liquid and vapor
H227	Combustible liquid
H302	Harmful if swallowed
H311	Toxic in contact with skin
H315	Causes skin irritation
H318	Causes serious eye damage
H319	Causes serious eye irritation
H330	Fatal if inhaled
H331	Toxic if inhaled
H361d	Suspected of damaging the unborn child.
H370	Causes damage to organs
H373	May cause damage to organs through prolonged or repeated exposure
H400	Hazardous to the aquatic environment, acute hazard Category 1
H410	Hazardous to the aquatic environment, chronic hazard Category 1
H412	Harmful to Aquatic life with long lasting effects Category 3

Abbreviations and acronyms

ACGIH	American Conference of Government Industrial Hygienists
NIOSH	National Institute for Occupational Safety and Health
PVC	Polyvinyl chloride

SDS US (GHS HazCom 2021)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product