

DX1030

Safety Data Sheet

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

Date of issue 10/02/2006

Revision date: 04/13/23

Version 6

dynax

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

1.1 Product Identifier

Trade name : DX1030

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 DX1030 is a fluorosurfactant 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.2 H361d Suspected of damaging the unborn child.

2.2 Label elements

GHS-US Labelling
Hazard Pictogram (GHS-US)



GHS08

Signal word (GHS-US)
Hazard Statements (GHS-US)
Precautionary statements (GHS-US)

Warning
H361d Suspected of damaging the unborn child.
P201 - Obtain special instructions before use
P202 - Do not handle until all safety precautions have been read and understood.
P273 - Avoid release to the environment
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P308+P313- If exposed or concerned get medical advice/attention.
P405 Store locked up
P501 - Dispose of contents/container to an approved waste disposal plant.
(See section 13)

Hazard determining components of labelling

2-Methylpentane-2,4-diol

2.3 Other hazards

Results of PBT and vPBT assessment:
PBT
vPvB

Not applicable
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
2,4 Pentanediol, 2-methyl	(CAS No) 107-41-5	<10-20	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Repr.2, H361d

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
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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 as it may scatter and spread fire

5.2 Special hazards arising from the substance or mixture.

No additional information available

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	On heating, there is a risk of bursting due to internal pressure build-up. Cool down the containers exposed to heat with a water spray. Thermal combustion may release carbon monoxide, carbon dioxide, nitrogen oxides (NOx) sulfur oxides, and hydrofluoric acid- possibly carbonyl fluoride. Danger of toxic fluorine-based pyrolysis products.

Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

General measures	Stop leak if it is 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.
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6.1.1 For non-emergency personnel

Emergency procedures	Evacuate unnecessary personnel
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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/national regulations. Do not allow to enter into surface water or drains. Ensure all local, state and national regulations are observed.
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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	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

2,4-Pentanediol, 2-methyl- (107-41-5)

ACGIH

ACGIH Ceiling (ppm)

25 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

Yellow

Odor

Ammonia-like

Odor threshold

No data available

pH

6.5-7.5 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 (212 °F)

Flash point

> 95 °C (> 203 °F) (flammability does not apply)

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

1.23 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

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

Section 11: Toxicological information

11.1 Information on toxicological effects

DX1030

LD50 oral rat	> 5000 mg/kg (EPA Health Effects Testing Guidelines OPPTS Series)
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2,4-Pentanediol, 2-methyl- (107-41-5)

LD50 oral rat	3692 mg/kg
LC50 inhalation rat (mg/l)	>310 mg/m ³ (exposure time 1 h)
ATE US (oral)	3692 mg/kg bodyweight.

Skin corrosion / irritation

Not classified
(Conclusive but not sufficient for classification. On basis of test data.)
pH: 7 at 20°C

Serious eye damage/ irritation

Not classified
(Conclusive but not sufficient for classification. On basis of test data.)
pH: 7 at 20°C

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

Reproductive toxicity category 2, suspected of damaging the unborn child.

STOT-Single exposure

Based on available data, the classification criteria are not met

STOT- repeated exposure

Based on available data, the classification criteria are not met

Aspiration hazard

Based on available data, the classification criteria are not met

Potential Adverse human health effects and symptoms

Based on available data, the classification criteria are not met.

Symptoms/injuries after skin contact :

Prolonged or repeated contact with the skin may cause dermatitis.

Symptoms/injuries after eye contact :

In fine dispersion/spraying/misting: May cause eye irritation.

Section 12: Ecological information

12.1 Toxicity

Aquatic Toxicity

Based on available EC50 and LC50 values, no adverse effects are expected for the aquatic environment

DX1030

LC50 Daphnia 1	448 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 Daphnia 1	799 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 fish 2	650 mg/l (Exposure time: 96 h - Species: Pimephales promelas (Fathead Minnow))

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

DX1030

Persistence and degradability	Fluorinated components of DX1030 are persistent and non-degradable.
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12.3 Bioaccumulative potential

DX1030

Bioaccumulative potential	Not established.
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2,4-Pentanediol, 2-methyl- (107-41-5)

Log Pow	< 0.14
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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.

12.6 Endocrine disrupting properties

This product does not contain substances with endocrine disrupting properties.

Section 13: Disposal considerations

DX1030 contains PFAS (per- or poly-fluoroalkyl substances). 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 DX1030.

DX1030 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 Rule (SNUR).

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 SNUR.

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 SNUR.

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

DX1030 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 Rule (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 SNUR.

AFFF containing DX1030 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 DX1030 may not be used for training exercises.

When using AFFF containing DX1030 for emergency response, risk mitigation plans must be in place to reduce environmental release and further migration after the fire is extinguished.

Manufacture of DX1030 such that it contains no C8 impurity levels above those allowed.

Disposal of DX1030 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.

2,4-Pentanediol, 2-methyl- (107-41-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2 International regulations

CANADA

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

EU- Regulations

2,4-Pentanediol, 2-methyl- (107-41-5)

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**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)

15.3 US State regulations

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

Section 16: Regulatory information

Other information : None

Full Text of H phrases

Eye Irrit. 2A	Serious eye damage/eye irritation, Category 2A
Repr.2	Reproductive toxicity, Category 2.
Skin Irrit. 2	Skin corrosion/irritation Category 2
H315	Causes skin irritation
H319	Causes serious eye irritation
H361d	Suspected of damaging the unborn child.

ACGIH	American Conference of Government Industrial Hygienists
IARC	International Agency for Research on Cancer
NIOSH	National Institute for Occupational Safety and Health
PVC	Polyvinyl chloride

Abbreviations and acronyms

ACGIH	American Conference of Government Industrial Hygienists
IARC	International Agency for Research on Cancer
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