

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

1.1 Product identifier

Trade name: DX5011

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

Sector of Use: Product supplied for industrial use only

Application of the substance / the preparation:

DX5011 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 liquid

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

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

Further information obtainable from:

REACH Only Representative
B-Lands Consulting
5 Place Robert Schuman, BP 1516
38025 Grenoble, FRANCE
Tel: +33 476 295 869
Fax: +33 476 295 870
Email: clients@reach-compliance.eu
Web: www.reachteam.eu

1.4 Emergency telephone number(s):

CHEMTREC: +1 703-741-5970 (24h)
Ireland - National Poisons Information Centre: 01 837 9964 or 01 809 2566 (healthcare professionals only).

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008:

The product is classified and labelled according to the CLP regulation.

Hazard pictograms:



GHS08

Signal word: Warning

Hazard-determining components of labelling:

2,2'-iminodiethanol

Hazard statements:

H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary statements:

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P314 Get medical advice/attention if you feel unwell.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

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Trade name: DX5011**Additional information:**

DX5011 contains PFAS (per- or poly-fluoroalkyl substances).
EUH210 Safety data sheet available on request.

2.3 Other hazards**Results of PBT and vPvB assessment****PBT:** Not applicable.**vPvB:** Not applicable.**SECTION 3: Composition/information on ingredients****Hazardous components:**

CAS: 111-42-2	2,2'-iminodiethanol	10%
EINECS: 203-868-0	STOT RE 2, H373; Eye Dam. 1, H318; Acute Tox. 4, H302; Skin Irrit. 2, H315	

Additional information: For the wording of the listed hazard phrases refer to section 16.**SECTION 4: First aid measures****4.1 Description of first aid measures****After inhalation:** Move patient to fresh air, if symptoms persist consult a doctor.**After skin contact:** Immediately wash with water and soap and rinse thoroughly.**After eye contact:** Rinse opened eye for several minutes under running water.**After swallowing:** Do not induce vomiting; call for medical help immediately.**4.2 Most important symptoms and effects, both acute and delayed**

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures**5.1 Extinguishing media****Suitable extinguishing agents:**CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.**5.2 Special hazards arising from the substance or mixture**

No further relevant information available.

5.3 Advice for firefighters**Protective equipment:**

Do not enter fire area without proper personal protective equipment, including respiratory protection (EN137).

Additional information:Thermal combustion may release carbon monoxide, carbon dioxide, nitrogen oxides (NO_x) and hydrofluoric acid- possibly carbonyl fluoride.**SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures**

Wear protective clothing.

6.2 Environmental precautions

Do not allow to enter sewers/ surface or ground water.

Dilute with plenty of water.

6.3 Methods and material for containment and cleaning up Absorb with liquid-binding material.**6.4 Reference to other sections**

See Section 7 for information on safe handling.

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See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling Keep away from heat and direct sunlight.

Information about fire - and explosion protection: No special measures required.

7.2 Conditions for safe storage, including any incompatibilities

Requirements to be met by storerooms and receptacles:

Store in a cool, dry place in well sealed receptacles.

Information about storage in one common storage facility: No special measures required.

Further information about storage conditions: None.

7.3 Specific end use(s): No further relevant information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace:

111-42-2 2,2'-iminodiethanol

OEL	Long-term value: 1* mg/m ³ , 0.2 ppm *Inhalable fraction and vapour
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Additional information: The lists valid during the making were used as basis.

8.2 Exposure controls

Individual protection measures, such as personal protective equipment

General protective and hygienic measures: Wash hands before breaks and at the end of work.

Respiratory protection: Not required under normal conditions of use.

Hand protection



Protective gloves.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Eye/face protection



Safety glasses with side-shields (EN 166).

Body protection: Protective work clothing.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information

Colour:	Amber.
Odour:	Mild.
Odour threshold:	Not determined.
Melting point/freezing point:	Not determined.
Boiling point or initial boiling point and boiling range	Not determined.
Flammability	Not applicable.

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Trade name: DX5011**Lower and upper explosion limit****Lower:** Not determined.**Upper:** Not determined.**Flash point:** Non-flammable**Ignition temperature:** Not determined.**Decomposition temperature:** Not determined.**pH at 20 °C** 7-8**Viscosity:****Kinematic viscosity** Not determined.**VOC (EC):****Dynamic:** 1500-2500 cP's**Solubility****Water:** Soluble.**Partition coefficient n-octanol/water (log value)** Not determined.**Vapour pressure:** Not determined.**Density and/or relative density****Density:** 1.14 g/cm³**Relative density** Not determined.**Vapour density** Not determined.**9.2 Other information****Appearance:****Form:** Viscous**Auto-ignition temperature:** Product is not selfigniting.**Explosive properties:** Product does not present an explosion hazard.**Softening point/range****Oxidising properties** Not determined.**Evaporation rate** Not determined.**Information with regard to physical hazard classes****Explosives** Not applicable.**Flammable gases** Not applicable.**Aerosols** Not applicable.**Oxidising gases** Not applicable.**Gases under pressure** Not applicable.**Flammable liquids** Not applicable.**Flammable solids** Not applicable.**Self-reactive substances and mixtures** Not applicable.**Pyrophoric liquids** Not applicable.**Pyrophoric solids** Not applicable.**Self-heating substances and mixtures** Not applicable.**Substances and mixtures, which emit flammable gases in contact with water** Not applicable.**Oxidising liquids** Not applicable.**Oxidising solids** Not applicable.**Organic peroxides** Not applicable.**Corrosive to metals** Not applicable.**Desensitised explosives** Not applicable.**SECTION 10: Stability and reactivity****10.1 Reactivity**

No data available.

No further relevant information available.

10.2 Chemical stability**Thermal decomposition / conditions to be avoided:**

No decomposition if used and stored according to specifications.

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Trade name: DX5011**10.3 Possibility of hazardous reactions** No dangerous reactions known.**10.4 Conditions to avoid** No further relevant information available.**10.5 Incompatible materials** No further relevant information available.**10.6 Hazardous decomposition products**Fumes: Carbon monoxide, carbon dioxide, nitrogen oxides (NO_x), and hydrofluoric acid- possibly carbonyl fluoride.**SECTION 11: Toxicological information****11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008****Acute toxicity** Based on available data, the classification criteria are not met.**LD/LC50 values:****DX5011**

Oral | LD50 | >5000 mg/kg (Rat) (EPA Health Testing Guidelines OPPTS Serie 870.1100)

Skin corrosion/irritation: Based on available data, the classification criteria are not met.**Serious eye damage/irritation:** Based on available data, the classification criteria are not met.**Respiratory or skin sensitisation:** 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

Aspiration hazard: Based on available data, the classification criteria are not met.**11.2 Information on other hazards****11.2.1 Endocrine disrupting properties**

None of the ingredients are listed.

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

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EC50/48h | 2236 mg/L (Daphnia Magna) (OECD 202)

LC50/48h | 3299 mg/L (Daphnia Magna) (OECD 202)

LC50/96h | 17678 mg/L (Rainbow Trout)

12.2 Persistence and degradability

Fluorinated components of DX5011 are persistent and non-degradable.

12.3 Bioaccumulative potential No further relevant information available.**12.4 Mobility in soil** No further relevant information available.**12.5 Results of PBT and vPvB assessment****PBT:** Not applicable.**vPvB:** Not applicable.**12.6 Endocrine disrupting properties**

The product does not contain substances with endocrine disrupting properties.

12.7 Other adverse effects No further relevant information available.

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SECTION 13: Disposal considerations

13.1 Waste treatment methods

Recommendation:

Do not allow product to reach water course, sewage systems, soil and the environment.

DX5011 contains PFAS. Small quantities of DX5011 may be collected on adsorbents which can then be disposed of. Collect all waste in suitable and labelled containers and disposed in accordance with official regulations.

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

Uncleaned packaging:
Recommendation:

Disposal must be made in accordance with official regulations.

Packaging that may not be cleansed must be disposed of in the same manner as the product.

Recommended cleansing agents: Water, if necessary together with cleansing agents.

SECTION 14: Transport information

14.1 UN number or ID number

ADR, ADN, IMDG, IATA Not applicable.

14.2 UN proper shipping name

ADR, ADN, IMDG, IATA Not applicable.

14.3 Transport hazard class(es)

ADR, ADN, IMDG, IATA

Class Not applicable.

14.4 Packing group

ADR, IMDG, IATA Not applicable.

14.5 Environmental hazards

Marine pollutant: No

14.6 Special precautions for user Not applicable.

14.7 Maritime transport in bulk according to IMO instruments

Not applicable.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Directive 2012/18/EU

Named dangerous substances - ANNEX I None of the ingredients are listed.

REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3

DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II

None of the ingredients are listed.

REGULATION (EU) 2019/1148

Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))

None of the ingredients are listed.

Annex II - REPORTABLE EXPLOSIVES PRECURSORS

None of the ingredients are listed.

Regulation (EC) No 273/2004 on drug precursors

None of the ingredients are listed.

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Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors

None of the ingredients are listed.

15.2 Chemical safety assessment A Chemical Safety Assessment has not been carried out.**SECTION 16: Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Relevant phrases

H302 Harmful if swallowed.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H373 May cause damage to organs through prolonged or repeated exposure.

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WEL: Workplace Exposure Limits

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Acute Tox. 4: Acute toxicity – Category 4

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2