



NJORD Dragon Fire

Printing: 14/01/2023

Date of compilation: 14/01/2023

Version: 1

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier:

Njord Dragon Fire

Other means of identification:

Non-applicable

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

Relevant uses: Detergent

Uses advised against: All uses not specified in this section or in section 7.3

1.3 Details of the supplier of the safety data sheet:

Njord Chemicals
Albion House, Drury Lane
OL9 7PS Oldham - United Kingdom
Phone: +44 (0) 161 706 1212
sales@njordchemicals.com
www.njordchemicals.com

1.4 Emergency telephone number: +44 (0) 161 706 1212

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture:

GB CLP Regulation:

Classification of this product has been carried out in accordance with GB CLP Regulation.

Aquatic Chronic 3: Hazardous to the aquatic environment, long-term hazard, Category 3, H412

Eye Dam. 1: Serious eye damage, Category 1, H318

Skin Corr. 1B: Skin corrosion, Category 1B, H314

2.2 Label elements:

GB CLP Regulation:

Danger



Hazard statements:

Aquatic Chronic 3: H412 - Harmful to aquatic life with long lasting effects.

Skin Corr. 1B: H314 - Causes severe skin burns and eye damage.

Precautionary statements:

P101: If medical advice is needed, have product container or label at hand.

P102: Keep out of reach of children.

P264: Wash thoroughly after use.

P280: Wear protective gloves/protective clothing/eye protection/protective footwear.

P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

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

P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310: Immediately call a POISON CENTER/doctor.

P501: Dispose of the contents and/or its container using the separate collection system in your municipality.

Supplementary information:

EUH208: Contains Dipentene. May produce an allergic reaction.

Substances that contribute to the classification

Disodium metasilicate; Amines, C12-14 -alkyldimethyl , N-Oxides

Labelling for contents:

Component	Concentration interval
Anionic surfactants	% (w/w) < 5
Aromatic hydrocarbons	% (w/w) < 5

- CONTINUED ON NEXT PAGE -



NJORD Dragon Fire

Printing: 14/01/2023

Date of compilation: 14/01/2023

Version: 1

SECTION 2: HAZARDS IDENTIFICATION (continued)

Component	Concentration interval
Amphoteric surfactants	% (w/w) < 5
perfumes	

Allergenic fragrances: d-limonene (LIMONENE), Linalool (LINALOOL).

2.3 Other hazards:

Product fails to meet PBT/vPvB criteria

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance:

Non-applicable

3.2 Mixture:

Chemical description: Mixture composed of chemical products

Components:

In accordance with Annex II of The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020, the product contains:

Identification	Chemical name/Classification	Concentration
CAS: 6834-92-0	Disodium metasilicate Eye Dam. 1: H318; Met. Corr. 1: H290; Skin Corr. 1B: H314; STOT SE 3: H335 - Danger	5 - <10 %
CAS: 111-76-2	2-butoxyethanol Acute Tox. 4: H302+H332; Eye Irrit. 2: H319; Skin Irrit. 2: H315 - Warning	1 - <3 %
CAS: 308062-28-4	Amines, C12-14 -alkyldimethyl , N-Oxides Acute Tox. 4: H302; Aquatic Acute 1: H400; Aquatic Chronic 2: H411; Eye Dam. 1: H318; Skin Irrit. 2: H315 - Danger	1 - <3 %
CAS: 138-86-3	Dipentene Aquatic Acute 1: H400; Aquatic Chronic 1: H410; Flam. Liq. 3: H226; Skin Irrit. 2: H315; Skin Sens. 1: H317 - Warning	0.5 - <1 %

To obtain more information on the hazards of the substances consult sections 11, 12 and 16.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures:

Request medical assistance immediately, showing the SDS of this product.

By inhalation:

This product is not classified as hazardous through inhalation. However, in case of intoxication symptoms it is recommended to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, in which case this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:

Request immediate medical assistance, showing the SDS of this product. Do not induce vomiting, because its expulsion from the stomach can be hazardous to the mucus of the main digestive tract, and also risk damage to the respiratory system through inhalation. Rinse out the mouth and throat, as they may have been affected during ingestion. In the case of loss of consciousness do not administer anything orally unless supervised by a doctor. Keep the person affected at rest.

4.2 Most important symptoms and effects, both acute and delayed:

- CONTINUED ON NEXT PAGE -



NJORD Dragon Fire

Printing: 14/01/2023

Date of compilation: 14/01/2023

Version: 1

SECTION 4: FIRST AID MEASURES (continued)

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of any immediate medical attention and special treatment needed:

Non-applicable

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media:

Suitable extinguishing media:

Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems.

Unsuitable extinguishing media:

IT IS RECOMMENDED NOT to use full jet water as an extinguishing agent.

5.2 Special hazards arising from the substance or mixture:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Advice for firefighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and self-contained breathing apparatus (SCBA). Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...).

Additional provisions:

Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Eliminate all sources of ignition. In case of fire, cool the storage containers and tanks for products susceptible to combustion, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

For non-emergency personnel:

Isolate leaks provided that there is no additional risk for the people performing this task. Evacuate the area and keep out those without protection. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Above all prevent the formation of any vapour-air flammable mixtures, through either ventilation or the use of an inert medium. Remove any source of ignition. Eliminate electrostatic charges by interconnecting all the conductive surfaces on which static electricity could form, and also ensuring that all surfaces are connected to the ground.

For emergency responders:

Wear protective equipment. Keep unprotected persons away. See section 8.

6.2 Environmental precautions:

Avoid at all cost any type of spillage into an aqueous medium. Contain the product absorbed appropriately in hermetically sealed containers. Notify the relevant authority in case of exposure to the general public or the environment.

6.3 Methods and material for containment and cleaning up:

It is recommended:

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:

See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:

A.- General precautions for safe use

Comply with the current legislation concerning the prevention of industrial risks with regards manually handling weights. Maintain order, cleanliness and dispose of using safe methods (section 6).

- CONTINUED ON NEXT PAGE -



NJORD Dragon Fire

Printing: 14/01/2023 Date of compilation: 14/01/2023 Version: 1

SECTION 7: HANDLING AND STORAGE (continued)

B.- Technical recommendations for the prevention of fires and explosions

Avoid the evaporation of the product as it contains flammable substances, which could form flammable vapour/air mixtures in the presence of sources of ignition. Control sources of ignition (mobile phones, sparks,...) and transfer at slow speeds to avoid the creation of electrostatic charges. Consult section 10 for conditions and materials that should be avoided.

C.- Technical recommendations on general occupational hygiene

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks

Due to the danger of this product for the environment it is recommended to use it within an area containing contamination control barriers in case of spillage, as well as having absorbent material in close proximity.

7.2 Conditions for safe storage, including any incompatibilities:

A.- Technical measures for storage

- Minimum Temp.: 2 °C
- Maximum Temp.: 35 °C
- Maximum time: 24 Months

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace:

EH40/2005 Workplace exposure limits, fourth edition, published 2020:

Identification	Occupational exposure limits		
	WEL (8h)	25 ppm	123 mg/m ³
2-butoxyethanol CAS: 111-76-2	WEL (15 min)	50 ppm	246 mg/m ³

Biological limit values:

BIOLOGICAL MONITORING GUIDANCE VALUES (BMGVs) - EH40/2005

Identification	NULL	NULL	NULL
2-butoxyethanol CAS: 111-76-2	280 mg/g (NULL)	Butoxyacetic acid in urine	Post shift

DNEL (Workers):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Disodium metasilicate CAS: 6834-92-0 EC: 229-912-9	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	1.49 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	6.22 mg/m ³	Non-applicable
2-butoxyethanol CAS: 111-76-2 EC: 203-905-0	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	89 mg/kg	Non-applicable	125 mg/kg	Non-applicable
	Inhalation	1091 mg/m ³	246 mg/m ³	98 mg/m ³	Non-applicable
Amines, C12-14 -alkyldimethyl , N-Oxides CAS: 308062-28-4 EC: 931-292-6	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	11 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	6.2 mg/m ³	Non-applicable

DNEL (General population):

- CONTINUED ON NEXT PAGE -



NJORD Dragon Fire

Printing: 14/01/2023

Date of compilation: 14/01/2023

Version: 1

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Disodium metasilicate CAS: 6834-92-0 EC: 229-912-9	Oral	Non-applicable	Non-applicable	0.74 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	0.74 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	1.55 mg/m ³	Non-applicable
2-butoxyethanol CAS: 111-76-2 EC: 203-905-0	Oral	Non-applicable	Non-applicable	6.3 mg/kg	Non-applicable
	Dermal	89 mg/kg	Non-applicable	75 mg/kg	Non-applicable
	Inhalation	426 mg/m ³	147 mg/m ³	59 mg/m ³	Non-applicable
Amines, C12-14 -alkyldimethyl , N-Oxides CAS: 308062-28-4 EC: 931-292-6	Oral	Non-applicable	Non-applicable	0.44 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	5.5 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	1.53 mg/m ³	Non-applicable

PNEC:

Identification				
Disodium metasilicate CAS: 6834-92-0 EC: 229-912-9	STP	1000 mg/L	Fresh water	7.5 mg/L
	Soil	Non-applicable	Marine water	1 mg/L
	Intermittent	7.5 mg/L	Sediment (Fresh water)	Non-applicable
	Oral	Non-applicable	Sediment (Marine water)	Non-applicable
2-butoxyethanol CAS: 111-76-2 EC: 203-905-0	STP	463 mg/L	Fresh water	8.8 mg/L
	Soil	2.33 mg/kg	Marine water	0.88 mg/L
	Intermittent	26.4 mg/L	Sediment (Fresh water)	34.6 mg/kg
	Oral	0.02 g/kg	Sediment (Marine water)	3.46 mg/kg
Amines, C12-14 -alkyldimethyl , N-Oxides CAS: 308062-28-4 EC: 931-292-6	STP	24 mg/L	Fresh water	0.034 mg/L
	Soil	1.02 mg/kg	Marine water	0.003 mg/L
	Intermittent	0.034 mg/L	Sediment (Fresh water)	5.24 mg/kg
	Oral	0.0111 g/kg	Sediment (Marine water)	0.524 mg/kg

8.2 Exposure controls:


A.- Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protective Equipment, with the corresponding <<UKCA marking>>. For more information on Personal Protective Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation which needs some specification from the labour risk prevention services as it is not known whether the company has additional measures at its disposal.

B.- Respiratory protection


The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C.- Specific protection for the hands

Pictogram	PPE	Remarks
 Mandatory hand protection	Chemical protective gloves (Material: Nitrile, Breakthrough time: > 480 min, Thickness: 0.11 mm)	Replace the gloves at any sign of deterioration.

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application.

D.- Eye and face protection

Pictogram	PPE	Remarks
 Mandatory face protection	Panoramic glasses against splash/projections.	Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing.

E.- Body protection

- CONTINUED ON NEXT PAGE -



NJORD Dragon Fire

Printing: 14/01/2023



Date of compilation: 14/01/2023

Version: 1

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Pictogram	PPE	Remarks
	Work clothing	Replace before any evidence of deterioration. For periods of prolonged exposure to the product for professional/industrial users CE III is recommended, in accordance with the regulations in EN ISO 6529:2013, EN ISO 6530:2005, EN ISO 13688:2013, EN 464:1994.
	Anti-slip work shoes	Replace before any evidence of deterioration. For periods of prolonged exposure to the product for professional/industrial users CE III is recommended, in accordance with the regulations in EN ISO 20345:2012 y EN 13832-1:2007

F.- Additional emergency measures

Emergency measure	Standards	Emergency measure	Standards
 Emergency shower	ANSI Z358-1 ISO 3864-1:2011, ISO 3864-4:2011	 Eyewash stations	DIN 12 899 ISO 3864-1:2011, ISO 3864-4:2011

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

Appearance:

Physical state at 20 °C: Liquid
Appearance: Fluid
Colour: Colourless
Odour: Pleasant
Odour threshold: Non-applicable *

Volatility:

Boiling point at atmospheric pressure: 102 °C
Vapour pressure at 20 °C: 2335 Pa
Vapour pressure at 50 °C: 12303.39 Pa (12.3 kPa)
Evaporation rate at 20 °C: Non-applicable *

Product description:

Density at 20 °C: 1070.2 kg/m³
Relative density at 20 °C: 1.07
Dynamic viscosity at 20 °C: Non-applicable *
Kinematic viscosity at 20 °C: Non-applicable *
Kinematic viscosity at 40 °C: Non-applicable *
Concentration: Non-applicable *
pH: Non-applicable *
Vapour density at 20 °C: Non-applicable *
Partition coefficient n-octanol/water 20 °C: Non-applicable *
Solubility in water at 20 °C: Non-applicable *
Solubility properties: Completely miscible
Decomposition temperature: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

- CONTINUED ON NEXT PAGE -



NJORD Dragon Fire

Printing: 14/01/2023

Date of compilation: 14/01/2023

Version: 1

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Melting point/freezing point: Non-applicable *

Flammability:

Flash Point: Non Flammable (>60 °C)

Flammability (solid, gas): Non-applicable *

Autoignition temperature: 225 °C

Lower flammability limit: Non-applicable *

Upper flammability limit: Non-applicable *

Particle characteristics:

Median equivalent diameter: Non-applicable

9.2 Other information:

Information with regard to physical hazard classes:

Explosive properties: Non-applicable *

Oxidising properties: Non-applicable *

Corrosive to metals: Non-applicable *

Heat of combustion: Non-applicable *

Aerosols-total percentage (by mass) of flammable components: Non-applicable *

Other safety characteristics:

Surface tension at 20 °C: Non-applicable *

Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:

Chemically stable under the indicated conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:

Applicable for handling and storage at room temperature:

Shock and friction	Contact with air	Increase in temperature	Sunlight	Humidity
Not applicable	Not applicable	Precaution	Precaution	Not applicable

10.5 Incompatible materials:

Acids	Water	Oxidising materials	Combustible materials	Others
Avoid strong acids	Not applicable	Precaution	Not applicable	Avoid alkalis or strong bases

10.6 Hazardous decomposition products:

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO₂), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:

The experimental information related to the toxicological properties of the product itself is not available

Contains glycols. It is recommended not to breathe the vapours for prolonged periods of time due to the possibility of effects that are hazardous to the health .

- CONTINUED ON NEXT PAGE -



NJORD Dragon Fire

Printing: 14/01/2023

Date of compilation: 14/01/2023

Version: 1

SECTION 11: TOXICOLOGICAL INFORMATION (continued)

Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than the recommended occupational exposure limits, adverse effects on health may result, depending on the means of exposure:

A- Ingestion (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

B- Inhalation (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met. However, it contains substances classified as hazardous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract

C- Contact with the skin and the eyes (acute effect):

- Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns. For more information on the secondary effects see section 2.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for the effects mentioned. For more information see section 3.
IARC: 2-butoxyethanol (3); d-limonene (3); White mineral oil, >=20.5mm2/s (40°C) (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous with sensitising effects. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met. However, it contains substances classified as dangerous with sensitising effects. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met. However, it contains substances classified as hazardous for inhalation. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:

Identification	Acute toxicity		Genus
Disodium metasilicate CAS: 6834-92-0	LD50 oral	>5000 mg/kg	
	LD50 dermal	>5000 mg/kg	
	LC50 inhalation	>5 mg/L	
2-butoxyethanol CAS: 111-76-2	LD50 oral	1200 mg/kg	Rat
	LD50 dermal	3000 mg/kg	Rabbit
	LC50 inhalation	11 mg/L (ATEi)	

- CONTINUED ON NEXT PAGE -



NJORD Dragon Fire

Printing: 14/01/2023

Date of compilation: 14/01/2023

Version: 1

SECTION 11: TOXICOLOGICAL INFORMATION (continued)

Identification	Acute toxicity		Genus
	LD50 oral	LD50 dermal	
Amines, C12-14 -alkyldimethyl , N-Oxides CAS: 308062-28-4	1064 mg/kg	>5000 mg/kg	Rat
	Non-applicable		
Dipentene CAS: 138-86-3	>5000 mg/kg	>5000 mg/kg	
	>5000 mg/kg	>20 mg/L	

Acute Toxicity Estimate (ATE mix):

ATE mix		Ingredient(s) of unknown toxicity
Oral	29769.95 mg/kg (Calculation method)	0 %
Dermal	>5000 mg/kg (Calculation method)	Non-applicable
Inhalation	396 mg/L (4 h) (Calculation method)	0 %

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Toxicity:

Acute toxicity:

Identification	Concentration		Species	Genus
	LC50	EC50		
Disodium metasilicate CAS: 6834-92-0	210 mg/L (96 h)	216 mg/L (96 h)	Brachydanio rerio	Fish
	Non-applicable		Daphnia magna	Crustacean
2-butoxyethanol CAS: 111-76-2	1490 mg/L (96 h)	1815 mg/L (48 h)	Lepomis macrochirus	Fish
	911 mg/L (72 h)		Daphnia magna	Crustacean
			Pseudokirchneriella subcapitata	Algae
Amines, C12-14 -alkyldimethyl , N-Oxides CAS: 308062-28-4	3.5 mg/L (96 h)	10.4 mg/L (48 h)	Pimephales promelas	Fish
	0.3 mg/L (72 h)		Daphnia magna	Crustacean
			Selenastrum capricornutum	Algae
Dipentene CAS: 138-86-3	38.5 mg/L (96 h)	0.7 mg/L (48 h)	Pimephales promelas	Fish
	1.6 mg/L (48 h)		Daphnia magna	Crustacean
			Selenastrum capricornutum	Algae

Chronic toxicity:

Identification	Concentration		Species	Genus
	NOEC	NOEC		
2-butoxyethanol CAS: 111-76-2	100 mg/L	100 mg/L	Danio rerio	Fish
			Daphnia magna	Crustacean
Amines, C12-14 -alkyldimethyl , N-Oxides CAS: 308062-28-4	0.495 mg/L	0.7 mg/L	Pimephales promelas	Fish
			Daphnia magna	Crustacean

12.2 Persistence and degradability:

Substance-specific information:

Identification	Degradability		Biodegradability	
	BOD5	COD	Concentration	Period
2-butoxyethanol CAS: 111-76-2	0.71 g O2/g	2.2 g O2/g	100 mg/L	14 days
	0.32		% Biodegradable	96 %
Amines, C12-14 -alkyldimethyl , N-Oxides CAS: 308062-28-4	Non-applicable	Non-applicable	Concentration	73 mg/L
	Non-applicable	Non-applicable	Period	28 days
	Non-applicable	Non-applicable	% Biodegradable	90 %
Dipentene CAS: 138-86-3	Non-applicable	Non-applicable	Concentration	100 mg/L
	Non-applicable	Non-applicable	Period	14 days
	Non-applicable	Non-applicable	% Biodegradable	69 %

12.3 Bioaccumulative potential:

Substance-specific information:

- CONTINUED ON NEXT PAGE -



NJORD Dragon Fire

Printing: 14/01/2023

Date of compilation: 14/01/2023

Version: 1

SECTION 12: ECOLOGICAL INFORMATION (continued)

Identification	Bioaccumulation potential	
2-butoxyethanol CAS: 111-76-2	BCF	3
	Pow Log	0.83
	Potential	Low
Dipentene CAS: 138-86-3	BCF	660
	Pow Log	4.57
	Potential	High

12.4 Mobility in soil:

Identification	Absorption/desorption		Volatility	
2-butoxyethanol CAS: 111-76-2	Koc	8	Henry	1.621E-1 Pa·m ³ /mol
	Conclusion	Very High	Dry soil	No
	Surface tension	2.729E-2 N/m (25 °C)	Moist soil	Yes
Amines, C12-14 -alkyldimethyl , N-Oxides CAS: 308062-28-4	Koc	307	Henry	4E-9 Pa·m ³ /mol
	Conclusion	Very High	Dry soil	No
	Surface tension	Non-applicable	Moist soil	No
Dipentene CAS: 138-86-3	Koc	1300	Henry	3242.4 Pa·m ³ /mol
	Conclusion	Low	Dry soil	Yes
	Surface tension	Non-applicable	Moist soil	Yes

12.5 Results of PBT and vPvB assessment:

Product fails to meet PBT/vPvB criteria

12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:

Code	Description	Waste class
20 01 29*	detergents containing hazardous substances	Dangerous

Type of waste:

HP14 Ecotoxic, HP8 Corrosive

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations in accordance The Waste Regulations 2011, 2011 No. 988. As under 15 01 of the code and in case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. Waste should not be disposed of to drains. See paragraph 6.2.

Regulations related to waste management:

In accordance with Annex II of UK REACH the provisions related to waste management are stated:

UK legislation: The Waste Regulations 2011.

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:

With regard to ADR 2021 and RID 2021:

- CONTINUED ON NEXT PAGE -



NJORD Dragon Fire

Printing: 14/01/2023

Date of compilation: 14/01/2023

Version: 1

SECTION 14: TRANSPORT INFORMATION (continued)



- 14.1 UN number:** UN1760
14.2 UN proper shipping name: CORROSIVE LIQUID, N.O.S. (Disodium metasilicate)
14.3 Transport hazard class(es): 8
Labels: 8
14.4 Packing group: II
14.5 Environmental hazards: No
14.6 Special precautions for user
Tunnel restriction code: E
Physico-Chemical properties: see section 9
Limited quantities: 1 L
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code: Non-applicable

Transport of dangerous goods by sea:

With regard to IMDG 40-20:



- 14.1 UN number:** UN1760
14.2 UN proper shipping name: CORROSIVE LIQUID, N.O.S. (Disodium metasilicate)
14.3 Transport hazard class(es): 8
Labels: 8
14.4 Packing group: II
14.5 Marine pollutant: No
14.6 Special precautions for user
Special regulations: 274
EmS Codes: F-A, S-B
Physico-Chemical properties: see section 9
Limited quantities: 1 L
Segregation group: Non-applicable
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code: Non-applicable

Transport of dangerous goods by air:

With regard to IATA/ICAO 2022:



- 14.1 UN number:** UN1760
14.2 UN proper shipping name: CORROSIVE LIQUID, N.O.S. (Disodium metasilicate)
14.3 Transport hazard class(es): 8
Labels: 8
14.4 Packing group: II
14.5 Environmental hazards: No
14.6 Special precautions for user
Physico-Chemical properties: see section 9
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code: Non-applicable

SECTION 15: REGULATORY INFORMATION

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

- Substances listed in UK candidate list of substances of very high concern (SVHCs): Non-applicable
- Substances listed in UK REACH Authorisation List (Annex 14): Non-applicable

The Detergents (Amendment) (EU Exit) Regulations:

In accordance with this regulation the product complies with the following:

- CONTINUED ON NEXT PAGE -



NJORD Dragon Fire

Printing: 14/01/2023

Date of compilation: 14/01/2023

Version: 1

SECTION 15: REGULATORY INFORMATION (continued)

The tensoactives contained in this mixture comply with the biodegradability criteria stipulated in The Detergents (Amendment) (EU Exit) Regulations. The information to prove this is available to the relevant authorities of the Member States and will be shown to them by direct request or the request of a detergent manufacturer.

Labelling for contents:

Component	Concentration interval
Anionic surfactants	% (w/w) < 5
Aromatic hydrocarbons	% (w/w) < 5
Amphoteric surfactants	% (w/w) < 5
perfumes	

Allergenic fragrances: d-limonene (LIMONENE), Linalool (LINALOOL).

The Control of Major Accident Hazards Regulations 2015:

Non-applicable

Restrictions to commercialisation and the use of certain dangerous substances and mixtures (Annex XVII UK REACH, etc):

Shall not be used in:

- ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,
- tricks and jokes,
- games for one or more participants, or any article intended to be used as such, even with ornamental aspects.

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as a basis for conducting workplace-specific risk assessments in order to establish the necessary risk prevention measures for the handling, use, storage and disposal of this product.

Other legislation:

The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020.

The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use) (Amendment etc.) (EU Exit) Regulations 2020.

Control of Substances Hazardous to Health Regulations 2002 (as amended)

EH40/2005 Workplace exposure limits.

COSHH-SR24 Storing chemical products (small scale).

COSHH-SR2 Diluting chemical concentrates.

COSHH-SR4 Manual cleaning and disinfecting surfaces.

The Product Safety and Metrology etc. (Amendment etc.) (EU Exit) Regulations 2019: SCHEDULE 34 - Amendment of Regulation (EC) No 1223/2009 and related amendments.

The Detergents (Amendment) (EU Exit) Regulations 2020.

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:

This safety data sheet has been designed in accordance with ANNEX II-The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020.

Texts of the legislative phrases mentioned in section 2:

H314: Causes severe skin burns and eye damage.

H318: Causes serious eye damage.

H412: Harmful to aquatic life with long lasting effects.

Texts of the legislative phrases mentioned in section 3:

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

GB CLP Regulation:

- CONTINUED ON NEXT PAGE -



NJORD Dragon Fire

Printing: 14/01/2023

Date of compilation: 14/01/2023

Version: 1

SECTION 16: OTHER INFORMATION (continued)

Acute Tox. 4: H302 - Harmful if swallowed.
Acute Tox. 4: H302+H332 - Harmful if swallowed or if inhaled.
Aquatic Acute 1: H400 - Very toxic to aquatic life.
Aquatic Chronic 1: H410 - Very toxic to aquatic life with long lasting effects.
Aquatic Chronic 2: H411 - Toxic to aquatic life with long lasting effects.
Eye Dam. 1: H318 - Causes serious eye damage.
Eye Irrit. 2: H319 - Causes serious eye irritation.
Flam. Liq. 3: H226 - Flammable liquid and vapour.
Met. Corr. 1: H290 - May be corrosive to metals.
Skin Corr. 1B: H314 - Causes severe skin burns and eye damage.
Skin Irrit. 2: H315 - Causes skin irritation.
Skin Sens. 1: H317 - May cause an allergic skin reaction.
STOT SE 3: H335 - May cause respiratory irritation.

Classification procedure:

Skin Corr. 1B: Calculation method
Eye Dam. 1: Calculation method
Aquatic Chronic 3: Calculation method

Advice related to training:

Training is recommended in order to prevent industrial risks for staff using this product and to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:

<http://echa.europa.eu>
<http://eur-lex.europa.eu>

Abbreviations and acronyms:

ADR: European agreement concerning the international carriage of dangerous goods by road
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
LC50: Lethal Concentration 50
EC50: Effective concentration 50
LogPOW: Octanolwater partition coefficient
Koc: Partition coefficient of organic carbon
UFI: unique formula identifier
IARC: International Agency for Research on Cancer

The information contained in this safety data sheet is based on sources, technical knowledge and current legislation at UK, without being able to guarantee its accuracy. This information cannot be considered a guarantee of the properties of the product, it is simply a description of the security requirements. The occupational methodology and conditions for users of this product are not within our awareness or control, and it is ultimately the responsibility of the user to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information on this safety data sheet only refers to this product, which should not be used for needs other than those specified.

- END OF SAFETY DATA SHEET -