



## Safety Data Sheet

according to UK REACH Regulation

### Tornado concentrate

Revision date: 12.12.2022

Product code: j2522\_sd

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#### Precautionary statements

P280 Wear eye protection.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

#### 2.3. Other hazards

None known.

### SECTION 3: Composition/information on ingredients

#### 3.2. Mixtures

##### Chemical characterization

according to 648/2004/CE: nonionic surfactants <5%, anionic surfactants 5-15%, dyes, fragrances (Limonene, Citral)

##### Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (GB CLP Regulation)			
97489-15-1	Sodium C14-17 Sec Alkyl Sulfonate			5 - < 10 %
	307-055-2		01-2119489924-20	
	Acute Tox. 4, Skin Irrit. 2, Eye Dam. 1, Aquatic Chronic 3; H302 H315 H318 H412			
69011-36-5	i-C13-Fatty alcohol polyglycol ethers 5-12 EO			1 - < 5 %
	931-138-8			
	Acute Tox. 4, Eye Dam. 1; H302 H318			

Full text of H and EUH statements: see section 16.

##### Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
97489-15-1	307-055-2	Sodium C14-17 Sec Alkyl Sulfonate	5 - < 10 %
		oral: ATE = 500 mg/kg Skin Irrit. 2; H315: >= 10 - 100 Eye Dam. 1; H318: >= 15 - 100 Eye Irrit. 2; H319: >= 10 - < 15	
69011-36-5	931-138-8	i-C13-Fatty alcohol polyglycol ethers 5-12 EO	1 - < 5 %
		oral: ATE = 500 mg/kg Eye Dam. 1; H318: >= 10 - 100 Eye Irrit. 2; H319: >= 6 - < 10	

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

##### General information

Avoid contact with skin and eyes.

##### After inhalation

not hazardous by inhalation

##### After contact with skin

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

##### After contact with eyes

Rinse thoroughly with plenty of water, also under the eyelids.

If eye irritation persists, consult a specialist.

##### After ingestion

Clean mouth with water and drink afterwards plenty of water. Prevent vomiting if possible.

Consult a physician.

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#### **4.2. Most important symptoms and effects, both acute and delayed**

This information is not available.

#### **4.3. Indication of any immediate medical attention and special treatment needed**

Show this safety data sheet to the doctor in attendance.

### **SECTION 5: Firefighting measures**

#### **5.1. Extinguishing media**

##### **Suitable extinguishing media**

Any extinguishing means and measures are acceptable.

#### **5.2. Special hazards arising from the substance or mixture**

This information is not available.

#### **5.3. Advice for firefighters**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. The product itself does not burn.

### **SECTION 6: Accidental release measures**

#### **6.1. Personal precautions, protective equipment and emergency procedures**

##### **General advice**

Avoid contact with skin and eyes.

##### **For non-emergency personnel**

Use personal protection equipment.

##### **For emergency responders**

Use personal protection equipment.

#### **6.2. Environmental precautions**

Do not flush into surface water.

#### **6.3. Methods and material for containment and cleaning up**

##### **For containment**

Stop leak if safe to do so. Cover drains.

Prevent spread over a wide area (e.g. by containment or oil barriers).

##### **For cleaning up**

Wipe up with absorbent material (e.g. cloth, fleece).

Clean contaminated articles and floor according to the environmental legislation.

##### **Other information**

Never return spills in original containers for re-use.

#### **6.4. Reference to other sections**

Refer to protective measures listed in sections 7 and 8.

### **SECTION 7: Handling and storage**

#### **7.1. Precautions for safe handling**

##### **Advice on safe handling**

Avoid contact with skin and eyes.

##### **Advice on protection against fire and explosion**

Not required

##### **Advice on general occupational hygiene**

Handle in accordance with good industrial hygiene and safety practice.

#### **7.2. Conditions for safe storage, including any incompatibilities**

##### **Requirements for storage rooms and vessels**

Store at room temperature in the original container. Store in a place accessible by authorized persons only.

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#### Hints on joint storage

Keep away from food, drink and animal feedingstuffs.

#### Further information on storage conditions

Keep container tightly closed.

Never return unused material to storage receptacle.

#### 7.3. Specific end use(s)

This information is not available.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### Additional advice on limit values

To date, no national critical limit values exist.

#### 8.2. Exposure controls

##### Appropriate engineering controls

Not required

##### Individual protection measures, such as personal protective equipment

##### Eye/face protection

Safety glasses with side-shields conforming to EN166

##### Hand protection

Suitable protective gloves recommended.

Recommendation: Nitrile gloves with a coating thickness of 0.4 mm which protect at least 8 hours (corresponds to the permeability level 6 of the European norm DIN/EN 374) and provide a resistance to swelling of < 15%.

##### Skin protection

Wear suitable protective clothing.

##### Respiratory protection

Not required

##### Environmental exposure controls

Handle in accordance with good industrial hygiene and safety practice.

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Physical state:	liquid
Colour:	blue
Odour:	pleasant

	Test method
Melting point/freezing point:	<-2 °C
Boiling point or initial boiling point and boiling range:	>90 °C
Flammability:	not applicable
Lower explosion limits:	not applicable
Upper explosion limits:	not applicable
Flash point:	>100 °C
Auto-ignition temperature:	>300 °C
Decomposition temperature:	not determined
pH-Value (at 20 °C):	approx. 10,0 K-QP1012C
Viscosity / kinematic:	not determined
Water solubility: (at 20 °C)	completely miscible

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Solubility in other solvents

not determined

Partition coefficient n-octanol/water:

not determined

Vapour pressure:

not determined

Density (at 20 °C):

1,11 g/cm<sup>3</sup> K-QP1012E

Relative vapour density:

not determined

Particle characteristics:

not applicable

**9.2. Other information****Information with regard to physical hazard classes**

Explosive properties

Not explosive

Self-ignition temperature

Solid:

not applicable

Gas:

not applicable

Oxidizing properties

Not relevant

**Other safety characteristics**

Evaporation rate:

not determined

Solid content:

not determined

Sublimation point:

not applicable

Softening point:

not applicable

Pour point:

not applicable

Viscosity / dynamic:

not determined

Flow time:

not determined

**SECTION 10: Stability and reactivity****10.1. Reactivity**

This information is not available.

**10.2. Chemical stability**

This information is not available.

**10.3. Possibility of hazardous reactions**

This information is not available.

**10.4. Conditions to avoid**

Do not expose to temperatures above 35 °C.

**10.5. Incompatible materials**

This information is not available.

**10.6. Hazardous decomposition products**

No decomposition if stored and applied as directed.

**Further information**

Do not mix with other detergents or chemicals.

**SECTION 11: Toxicological information****11.1. Information on hazard classes as defined in GB CLP Regulation****Acute toxicity**

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

**ATEmix calculated**

ATE (oral) &gt; 2000 mg/kg; ATE (dermal) &gt; 2000 mg/kg; ATE (inhalation vapour) &gt; 20 mg/l; ATE (inhalation dust/mist) &gt; 5 mg/l

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CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
97489-15-1	Sodium C14-17 Sec Alkyl Sulfonate				
	oral	ATE 500 mg/kg			
69011-36-5	i-C13-Fatty alcohol polyglycol ethers 5-12 EO				
	oral	ATE 500 mg/kg			

#### Irritation and corrosivity

Causes serious eye irritation.

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

#### Sensitising effects

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

#### Carcinogenic/mutagenic/toxic effects for reproduction

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

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

#### Aspiration hazard

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

#### 11.2. Information on other hazards

##### Endocrine disrupting properties

This information is not available.

##### Further information

Health injuries are not known or expected under normal use.

### SECTION 12: Ecological information

#### 12.1. Toxicity

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

#### 12.2. Persistence and degradability

Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants. The surfactants in the product meet all requirements of the detergents regulation 648/2004/EC.

#### 12.3. Bioaccumulative potential

This information is not available.

#### 12.4. Mobility in soil

This information is not available.

#### 12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.

#### 12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

#### 12.7. Other adverse effects

This information is not available.

##### Further information

Chemical Oxygen Demand (COD): 706mg O<sub>2</sub>/g

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**SECTION 13: Disposal considerations****13.1. Waste treatment methods****Disposal recommendations**

Container should be emptied thoroughly. Do not pour remains of product in large quantities into the sewage.

**List of Wastes Code - residues/unused products**

070699 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the MFSU of fats, grease, soaps, detergents, disinfectants and cosmetics; wastes not otherwise specified

**List of Wastes Code - used product**

070699 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the MFSU of fats, grease, soaps, detergents, disinfectants and cosmetics; wastes not otherwise specified

**Contaminated packaging**

Clean container with water. Return cleaned containers to the company for recycling.  
Offer rinsed packaging material to local recycling facilities.

**SECTION 14: Transport information****Land transport (ADR/RID)**

**14.1. UN number or ID number:** not applicable

**14.2. UN proper shipping name:** not applicable

**14.3. Transport hazard class(es):** not applicable

**14.4. Packing group:** not applicable

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: No

**14.6. Special precautions for user**

Not required

**14.7. Maritime transport in bulk according to IMO instruments**

not applicable

**Other applicable information**

Not classified as dangerous in the meaning of transport regulations.

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information**

Restrictions on use (REACH, annex XVII):

Entry 3

**National regulatory information**

Water hazard class (D): 2 - obviously hazardous to water

**15.2. Chemical safety assessment**

Chemical safety assessments for substances in this mixture were not carried out.

**SECTION 16: Other information****Changes**

This data sheet contains changes from the previous version in section(s): 3 / 6 / 7 / 8 / 12

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#### Abbreviations and acronyms

ADR: Accord européen sur le transport 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 Harmonized 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  
LC50: Lethal concentration, 50%  
LD50: Lethal dose, 50%  
CLP: Classification, labelling and Packaging  
REACH: Registration, Evaluation and Authorization of Chemicals  
GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals  
UN: United Nations  
DNEL: Derived No Effect Level  
DMEL: Derived Minimal Effect Level  
PNEC: Predicted No Effect Concentration  
ATE: Acute toxicity estimate  
LL50: Lethal loading, 50%  
EL50: Effect loading, 50%  
EC50: Effective Concentration 50%  
ErC50: Effective Concentration 50%, growth rate  
NOEC: No Observed Effect Concentration  
BCF: Bio-concentration factor  
PBT: persistent, bioaccumulative, toxic  
vPvB: very persistent, very bioaccumulative  
RID: Regulations concerning the international carriage of dangerous goods by rail  
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways  
(Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures)  
EmS: Emergency Schedules  
MFAG: Medical First Aid Guide  
MARPOL: International Convention for the Prevention of Marine Pollution from Ships  
IBC: Intermediate Bulk Container  
SVHC: Substance of Very High Concern

For abbreviations and acronyms, see table at <http://abbrev.esdscom.eu>

Acute Tox: Acute toxicity

Skin Irrit: Skin irritation

Eye Dam: Eye damage

Eye Irrit: Eye irritation

Aquatic Chronic: Chronic aquatic hazard

#### Classification for mixtures and used evaluation method according to GB CLP Regulation

Classification	Classification procedure
Eye Irrit. 2; H319	Calculation method

#### Relevant H and EUH statements (number and full text)

H302	Harmful if swallowed.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H412	Harmful to aquatic life with long lasting effects.



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*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*