

according to UK REACH Regulation

Tornado

Revision date: 12.12.2022

Product code: j2501_sd

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

1.1. Product identifier

Tornado

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

Felsöipari körút 3/ D

A8-LIU 48/49 - KIZAD

Use of the substance/mixture

Product for professional cleaning and maintenance

1.3. Details of the supplier of	f the safety data sheet					
Company name:	JOHANNES F	JOHANNES KIEHL KG				
Street:	Robert-Bosch-Str. 9	Robert-Bosch-Str. 9				
Place:	D-85235 Odelzhaus	D-85235 Odelzhausen				
Telephone:	+49 8134 9305-0		Telefax: +49 8134 6466			
e-mail:	info@kiehl-group.co	info@kiehl-group.com				
Contact person:	Laboratory departm	Laboratory department				
Internet:	www.kiehl-group.cc	www.kiehl-group.com				
Responsible Department:	Notrufnummer für d	Notrufnummer für deutsch- und englischsprachige Länder: +49/89/19240				
	Vergiftungsinformat	Vergiftungsinformationszentrale (VIZ) Österreich: +43 1 406 43 43				
	Nationale Notrufnur	Nationale Notrufnummer für die Schweiz (Tox-Zentrum Zürich): 145				
	Numéro d'urgence	Numéro d'urgence France: INRS: +33 (0) 1 45 42 59 59				
	Numero d' emerger	nza Italia: Centro Antiveleni	- 20162 Milano: 02/66101029			
	u		ó Szolgálat/, 1096 Budapest,			
Nagyvárad tér 2. Ügyeleti telefonszám: +36 80 201-199						
Eesti: Häirekeskuse number: 112 / Mürgistusteabekeskuse number: 1666						
	Emergency telepho	ne number for all other cou	intries: +49/8134/9305-169			
KIEHL Austria GmbH	Perfektastr. 57;	A-1230 Wien	Tel. +43 (0) 1 / 604 99 93			
KIEHL FRANCE S.A.R.L.	5, rue de Londres;	F-67670 Mommenheim	Tél. +33 (0) 3.88.59.52.25			
KIEHL Italia s.r.l.	Via San Rocco, 101;	I-16036 Recco (GE)	Tel. +39 / 0185 730 008			
KIEHL Schweiz AG	St. Dionys-Str. 33;	CH-8645 Jona	Tel. +41 (0) 55 / 254 74 74			

KIEHL Middle East LLC <u>1.4. Emergency telephone</u>

KIEHL Hungary Kft.

+49/89/19240 (germanophone and anglophone)

HU-2142 Nagytarcsa

Abu Dhabi, U.A.E.

Tel. +36 (0) 1 / 348-08 41

Tel. +971 2 550 33 96

number:

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Not required.

2.2. Label elements

Additional advice on labelling

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP].

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%, dyes, fragrances (Limonene)



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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			1 - < 5 %
	307-055-2		01-2119489924-20	
	Acute Tox. 4, Skin Irrit. 2, Eye Dam. 1, Aquatic Chronic 3; H302 H315 H318 H412			

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 1 -		
	oral: ATE = 500 mg/kg Skin Irrit. 2; H315: >= 10 - 100 Eye Dam. 1; H318: >= 15 - 100 Eye Irrit. 2; H319: >= 10 - < 15			

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

No hazards which require special first aid measures.

After inhalation

not hazardous by inhalation

After contact with skin

Wash off with plenty of water.

After contact with eyes

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

After ingestion

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

Consult a physician if necessary.

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

Not required



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For non-emergency personnel No special measures are necessary.

For emergency responders

No special measures are necessary.

6.2. Environmental precautions

Do not flush into surface water.

6.3. Methods and material for containment and cleaning up

For containment

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

No special precautions required.

Advice on protection against fire and explosion

No special protective measures against fire required.

Advice on general occupational hygiene

General industrial hygiene practice. No special protective equipment required.

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.

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

Skin protection

Not required

Respiratory protection

Not required



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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: greenish-blue	
Odour: pleasant	
Test me	ethod
Melting point/freezing point: <-2 °C	
Boiling point or initial boiling point and >90 °C	
boiling range:	
Flammability	
Solid/liquid: not applicable	
Gas: 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	400
pH-Value (at 20 °C): approx. 10,5 K-QP10	12C
Viscosity / kinematic: not determined	
Water solubility: completely miscible	
(at 20 °C)	
Solubility in other solvents not determined	
Partition coefficient n-octanol/water: not determined	
Vapour pressure: not determined	
Density (at 20 °C): 1,02 g/cm³ K-QP10	12F
Relative vapour density: not determined	
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 not applicable not applicable	
Pour point: not applicable not applicable	
Viscosity / dynamic: not determined	
Flow time: not determined	

SECTION 10: Stability and reactivity



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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.

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
97489-15-1	Sodium C14-17 Sec Alkyl Sulfonate				
	oral	ATE 500 mg/kg			

Irritation and corrosivity

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

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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) 120 mg O2/g.

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



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EU regulatory information

Additional information

Water hazard class (D):

The product does not need to be labelled in accordance with EC directives or respective national laws.

National regulatory information

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

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



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Relevant H and EUH statements (number and full text)

Harmful if swallowed.
Causes skin irritation.
Causes serious eye damage.
Harmful to aquatic life with long lasting effects.

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