

according to Regulation (EC) No 1907/2006

Tornado

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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

Use of the substance/mixture

Product for professional cleaning and maintenance

1.3. Details of the supplier of the safety data sheet

Company name: JOHANNES KIEHL KG

Street: Robert-Bosch-Str. 9
Place: D-85235 Odelzhausen

Telephone: +49 8134 9305-0 Telefax: +49 8134 6466

e-mail: info@kiehl-group.com Internet: www.kiehl-group.com

Responsible Department: Notrufnummer für deutsch- und englischsprachige Länder: +49/89/19240

Vergiftungsinformationszentrale (VIZ) Österreich: +43 1 406 43 43 Nationale Notrufnummer für die Schweiz (Tox-Zentrum Zürich): 145

Numéro d'urgence France: INRS: +33 (0) 1 45 42 59 59

Numero d' emergenza Italia: Centro Antiveleni - 20162 Milano: 02/66101029 ETTSZ /Egészségügyi Toxikológiai Tájékoztató Szolgálat/, 1096 Budapest,

Nagyvárad tér 2. Ügyeleti telefonszám: +36 80 201-199

Eesti: Häirekeskuse number: 112 / Mürgistusteabekeskuse number: 16662 Emergency telephone number for all other countries: +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 Hungary Kft. Felsőipari körút 3/ D HU-2142 Nagytarcsa Tel. +36 (0) 1 / 348-08 41 KIEHL Middle East LLC A8-LIU 48/49 - KIZAD Abu Dhabi, U.A.E. Tel. +971 2 550 33 96

1.4. Emergency telephone

+49/89/19240 (germanophone and anglophone)

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		
	GHS Classification				
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.

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

Not required

6.2. Environmental precautions

Do not flush into surface water.

6.3. Methods and material for containment and cleaning up

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

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.



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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.

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.

Protective and hygiene measures

General industrial hygiene practice. No special protective equipment required.

Skin protection

Not required

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: greenish-blue Odour: pleasant

Test method

pH-Value (at 20 °C): approx. 10,5 K-QP1012C

Changes in the physical state

Melting point: <-2 °C
Initial boiling point and boiling range: >90 °C
Sublimation point: not applicable
Softening point: not applicable
Pour point: not applicable

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Flash point: >100 °C

Flammability

Solid: not applicable
Gas: not applicable

Explosive properties

Not explosive

Lower explosion limits:

Upper explosion limits:

Ignition temperature:

not applicable

>300 °C

Auto-ignition temperature

Solid: not applicable
Gas: not applicable

Decomposition temperature: not determined

Oxidizing properties

Not relevant

Vapour pressure: not determined

Density (at 20 °C): 1,02 g/cm³ K-QP1012E

Water solubility: completely miscible

(at 20 °C)

Solubility in other solvents

not determined

Partition coefficient:

Viscosity / dynamic:

Not determined

Viscosity / kinematic:

Flow time:

Vapour density:

not determined

vapour density:

not determined

not determined

not determined

not determined

9.2. Other information

Solid content: 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.



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SECTION 11: Toxicological information

11.1. Information on toxicological effects

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.

Further information

Health injuries are not known or expected under normal use.

SECTION 12: Ecological information

12.1. Toxicity

No data is available on the product itself.

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

This information is not available.

12.6. 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.





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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:not applicable14.2. UN proper shipping name:not applicable14.3. Transport hazard class(es):not applicable14.4. Packing group:not applicable

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user

Not required

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

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

Additional information

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

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): 1/3

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





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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

Relevant H and EUH statements (number and full text)

H302	Harmful if swallowed.
H315	Causes skin irritation.
H318	Causes serious eye damage.

H412 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.)