

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 14.10.2019

Version number 8

Revision: 07.10.2019

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

1.1 Product identifier

Trade name: Turbo-K Concentrate (1:4)

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

Application of the substance / the preparation: Gas turbine compressor cleaner.

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

TURBO-K Ltd.
19 Staple Gardens, Winchester,
SO23 8SR,
United Kingdom.
Email: info@turbo-k.com
Web: www.turbo-k.com
Tel. (Germany): +49-(0)7641-55346

Global Distribution:

FP Turbomachinery
Email: info@fpturbo.com
Web: www.fpturbo.com

1.4 Emergency telephone number(s):

Germany: +49-(0)7641-55346 (office hours).
NHS Direct: 111
National Poisons Information Service (NPIS): 0121 507 4123 (healthcare professionals only).

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Eye Dam. 1 H318 Causes serious eye damage.

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:



GHS05

Signal word: Danger

Hazard-determining components of labelling:

Aliphatic amine derivative*

Hazard statements:

H318 Causes serious eye damage.

Precautionary statements:

P233 Keep container tightly closed.
P234 Keep only in original container.
P264 Wash thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face 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.
P310 Immediately call a POISON CENTER/doctor.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

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Trade name: Turbo-K Concentrate (1:4)**Additional information:**

*Alternative chemical name in accordance with CLP Article 24(9) (approved under Article 15 of Directive 1999/45/EC on 8th January 2013).

EUH066 Repeated exposure may cause skin dryness or cracking.

2.3 Other hazards**Results of PBT and vPvB assessment**

PBT: Not applicable.

vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

3.2 Mixtures**Hazardous components:**

Salt of an amino acid derivative*	Eye Irrit. 2, H319	5-15%
Aliphatic amine derivative*	Eye Dam. 1, H318	5-15%

Non-hazardous components:

CAS: 7732-18-5 EINECS: 231-791-2	Water (demineralised)	55-85%
CAS: 34590-94-8 EINECS: 252-104-2	Dipropylene glycol methyl ether	5-15%

Additional information:

*Alternative chemical name in accordance with CLP Article 24(9) (approved under Article 15 of Directive 1999/45/EC on 8th January 2013).

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. Then consult a doctor.

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: Wear self-contained respiratory protective device.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Keep unprotected persons away.

6.2 Environmental precautions No special measures required.

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6.3 Methods and material for containment and cleaning up

Absorb with liquid-binding material.

Dispose contaminated material as waste according to item 13.

6.4 Reference to other sections

See Section 7 for information on safe handling.

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 Store in cool, dry place in tightly closed receptacles.

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:

Keep container tightly closed.

Keep only in original container.

Information about storage in one common storage facility: Store away from oxidising agents.

Further information about storage conditions: Store above 5°C.

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:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

Additional information: The lists valid during the making were used as basis.

8.2 Exposure controls

Personal protective equipment

General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Avoid contact with the eyes and skin.

Respiratory protection: Not required.

Protection of hands:



Protective gloves.

Select the glove material based on a consideration of the penetration times, rates of diffusion and the degradation.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Material of gloves:

Nitrile rubber, NBR

PVC gloves

Recommended thickness of the material: ≥ 0.3 mm.

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

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Trade name: Turbo-K Concentrate (1:4)**Penetration time of glove material:**

> 480 min.

The exact break through time must be determined by the manufacturer of the protective gloves.

Eye 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****Appearance:**

Form: Liquid.
Colour: Amber / pale Straw.

Odour: Mild.
Odour threshold: Not determined.

pH-value: 6.5-7.5**Melting point/freezing point:** Not determined.**Initial boiling point and boiling range:** 100 °C**Flash point:** >100 °C**Flammability (solid, gas):** Not applicable.**Ignition temperature:** Not determined.**Decomposition temperature:** Not determined.**Explosive properties:** Product does not present an explosion hazard.**Explosion limits:**

Lower: Not determined.
Upper: Not determined.

Oxidising properties: Not determined.**Vapour pressure:** Not determined.**Density:** 1.00 g/cm³ (± 0,05)**Relative density:** Not determined.**Vapour density:** Not determined.**Evaporation rate:** Not determined.**Solubility in / Miscibility with****Water:** Fully miscible.**Partition coefficient: n-octanol/water:** Not determined.**Viscosity:**

Dynamic: Not determined.
Kinematic at 20 °C: 10 ± 3 cSt (ASTM D445)

9.2 Other information No further relevant information available.**SECTION 10: Stability and reactivity****10.1 Reactivity** No known hazardous reactions under normal use.

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Trade name: Turbo-K Concentrate (1:4)**10.2 Chemical stability** Stable under normal circumstances.**Thermal decomposition / conditions to be avoided:**

No decomposition if used and stored according to specifications.

10.3 Possibility of hazardous reactions No dangerous reactions known.**10.4 Conditions to avoid** No further relevant information available.**10.5 Incompatible materials** Strong oxidizing agents.**10.6 Hazardous decomposition products**

Formation of toxic gases (fumes) is possible during heating or in case fire.

SECTION 11: Toxicological information**11.1 Information on toxicological effects****Acute toxicity** Based on available data, the classification criteria are not met.**Primary irritant effect:****Skin corrosion/irritation:**

Based on available data, the classification criteria are not met; however, Irritation and redness may occur at site of contact.

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

Causes serious eye damage. There may be irritation and redness. There may be severe pain. Vision may become blurred. There may be permanent damage.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction):**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:** Based on available data, the classification criteria are not met.**Aspiration hazard:** Based on available data, the classification criteria are not met.**SECTION 12: Ecological information****12.1 Toxicity****Aquatic toxicity:**

LC50/96h >2000 mg/L (Scophthalmus Maximus (Turbot))

ErC50/72h >120 mg/L (Skeletonema costatum)

LC50/10d >5000 mg/L (crustacean)

12.2 Persistence and degradability Fully biodegradable.**12.3 Bioaccumulative potential** No evidence of bioaccumulative potential.**12.4 Mobility in soil** Mixture is not persistent in the environment.**Additional environmental information:****General notes:**

Water hazard class 1 (German Regulation) (Self-assessment): Slightly hazardous for water.

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

12.5 Results of PBT and vPvB assessment**PBT:** Not applicable.**vPvB:** Not applicable.**12.6 Other adverse effects** None.

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SECTION 13: Disposal considerations

13.1 Waste treatment methods

Recommendation:

Disposal must be made in accordance with official regulations.
Do not allow product to reach sewage system.

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.

SECTION 14: Transport information

14.1 UN 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 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

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

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

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

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 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)

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

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2