

Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date 21.02.2025

Version number 1

Revision: 21.02.2025

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

1.1 Product identifier

Trade name: Typ 1053 - Spezial-Hochdrucköl / Special High Pressure Oil

Article number: 18000006

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

Product category PC24 Lubricants, greases, release products

Application of the substance / the mixture Additional component

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

Kistler Instrumente AG
Eulachstrasse 22
8408 Winterthur, Schweiz

Further information obtainable from:

+41 52 224 11 11,

info@kistler.com, www.kistler.com

1.4 Emergency telephone number: +49 (0)6132-84463 (24 h; GBK GmbH)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008



GHS08 health hazard

Repr. 2 H361 Suspected of damaging fertility or the unborn child.

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 GHS08

Signal word Warning

Hazard-determining components of labelling:

Tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate

Hazard statements

H361 Suspected of damaging fertility or the unborn child.

Precautionary statements

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P308+P313 IF exposed or concerned: Get medical advice/attention.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

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vPvB: Not applicable.

* SECTION 3: Composition/information on ingredients

3.2 Chemical characterisation: Mixtures

Description: Mixture of substances listed below with nonhazardous additions.

Dangerous components:

CAS: 30989-05-0	Tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate ⚠ Repr. 2, H361; ⚠ Acute Tox. 4, H302	5-25%
CAS: 110-97-4 EINECS: 203-820-9	1,1'-iminodipropan-2-ol ⚠ Eye Irrit. 2, H319	0.5-5%
CAS: 111-77-3 EINECS: 203-906-6	2-(2-methoxyethoxy)ethanol ⚠ Repr. 2, H361d	0-1%

Additional information: 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: Supply fresh air; consult doctor in case of complaints.

After skin contact: Generally the product does not irritate the skin.

After eye contact: Rinse opened eye for several minutes under running water.

After swallowing:

If symptoms persist consult doctor.

Do not induce vomiting! Rinse mouth and drink plenty of water.

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: No special measures required.

* SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures Not required.

6.2 Environmental precautions:

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to section 13.

6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

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See Section 13 for disposal information.

* SECTION 7: Handling and storage

7.1 Precautions for safe handling Open and handle receptacle with care.

Information about fire - and explosion protection: Keep respiratory protective device available.

7.2 Conditions for safe storage, including any incompatibilities

Storage:

Requirements to be met by storerooms and receptacles: No special requirements.

Information about storage in one common storage facility: Not required.

Further information about storage conditions: Keep container tightly sealed.

7.3 Specific end use(s) No further relevant information available.

* SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Additional information about design of technical facilities: No further data; see section 7.

Ingredients with limit values that require monitoring at the workplace:

CAS: 111-77-3 2-(2-methoxyethoxy)ethanol

IOELV (EU)	Long-term value: 50.1 mg/m ³ , 10 ppm
	Skin

DNELs

CAS: 30989-05-0 Tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate

Oral	DNEL (long-term systemic effects)	1.5 mg/kg/day (human)
Dermal	DNEL (long-term systemic effects)	1.5 mg/kg/day (human)
Inhalative	DNEL (long-term systemic effects)	14.8 mg/m ³ (human)
	DNEL (long-term systemic effects)	2.6 mg/m ³ (human)

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.

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Respiratory protection: Not required.

Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

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

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

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For the permanent contact in work areas without heightened risk of injury (e.g. Laboratory) gloves made of the following material are suitable:

Butyl rubber, BR

Eye protection: Goggles recommended during refilling**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:	Yellow/orange
Odour:	Characteristic
Odour threshold:	Not determined.

pH-value: Not applicable.

Change in condition

Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range:	>260 °C

Flash point: >100 °C

Flammability: Not applicable.

Auto-ignition temperature: >400 °C

Decomposition temperature: Not determined.

Ignition temperature: Product is not selfigniting.

Explosive properties: In general, product does not present an explosion hazard.

Explosion limits:

Lower:	0.7 Vol %
Upper:	22 Vol %

Vapour pressure at 20 °C: 0 hPa

Density at 20 °C:	0.98 g/cm ³
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:	Not determined.

9.2 Other information: No further relevant information available.

SECTION 10: Stability and reactivity

10.1 Reactivity: No further relevant information available.

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10.2 Chemical stability**Thermal decomposition / conditions to be avoided:** No decomposition if used 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:** No further relevant information available.**10.6 Hazardous decomposition products:** No dangerous decomposition products known.**SECTION 11: Toxicological information****11.1 Information on toxicological effects****Acute toxicity** Based on available data, the classification criteria are not met.**LD/LC50 values relevant for classification:****CAS: 30989-05-0 Tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate**

Oral	LD50	2000 mg/kg (rat)
	LC50 / 24h	222.2-1010 mg/l (fish)

CAS: 111-77-3 2-(2-methoxyethoxy)ethanol

Oral	LD50	5500 mg/kg (rat)
Dermal	LD50	6540 mg/kg (rabbit)

Primary irritant effect:**Skin corrosion/irritation** Based on available data, the classification criteria are not met.**Serious eye damage/irritation** Based on available data, the classification criteria are not met.**Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.**Additional toxicological information:****CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)** No CMR effects known.**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**

Suspected of damaging fertility or the unborn child.

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:****CAS: 30989-05-0 Tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate**

EC50 / 48h	211.2-960 mg/l (aquatic invertebrates)
EC50/ 72h	224.4-1020 mg/l (aquatic algae and cyanobacteria) 222.2-1010 mg/l (fish)
EC50 / 24	211.2-960 mg/l (aquatic invertebrates)
LC50 / 96h	222.2-1010 mg/l (fish)
LC50/48h	222.2-1010 mg/l (fish)
NOEC/ 72h	224.4-1020 mg/l (aquatic algae and cyanobacteria)

12.2 Persistence and degradability No further relevant information available.**12.3 Bioaccumulative potential** No further relevant information available.**12.4 Mobility in soil** No further relevant information available.**Ecotoxicological effects:****Other information:** Do not discharge into drains, surface waters or groundwater.

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Additional ecological 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** No further relevant information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods**Recommendation**

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Uncleaned packaging:**Recommendation:** Disposal must be made according to official regulations.**Recommended cleansing agents:** Water, if necessary together with cleansing agents.

SECTION 14: Transport information

14.1 UN-Number ADR, IMDG, IATA	Void
14.2 UN proper shipping name ADR, ADN, IMDG, IATA	Void
14.3 Transport hazard class(es) ADR, ADN, IMDG, IATA Class	Void
14.4 Packing group ADR, IMDG, IATA	Void
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 and the IBC Code	Not applicable.
UN "Model Regulation":	Void

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 is listed.**15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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* SECTION 16: Other information

The information corresponds to the current state of knowledge. Kistler reserves the right to make technical changes. Liability for consequential damage resulting from the use of Kistler products is excluded.

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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

H302 Harmful if swallowed.

H319 Causes serious eye irritation.

H361 Suspected of damaging fertility or the unborn child.

H361d Suspected of damaging the unborn child.

Abbreviations and acronyms:

ADR: Accord relatif au transport international 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)

DNEL: Derived No-Effect Level (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Acute toxicity – Category 4

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

Repr. 2: Reproductive toxicity – Category 2

Repr. 2: Reproductive toxicity – Category 2

*** Data compared to the previous version altered.**