

Safety Data Sheet acc. to OSHA HCS

Printing date 02/21/2025

Reviewed on 02/21/2025

1 Identification

Product identifier**Trade name:** Typ 1053 - Spezial-Hochdrucköl / Special High Pressure Oil**Article number:** 18000006**Application of the substance / the mixture** Additional component**Details of the supplier of the safety data sheet****Manufacturer/Supplier:**Kistler Instrumente AG
Eulachstrasse 22
8408 Winterthur, Schweiz**Information department:**+41 52 224 11 11,
info@kistler.com, www.kistler.com**Emergency telephone number:** +49 (0)6132-84463 (24 h; GBK GmbH)

* 2 Hazard(s) identification

Classification of the substance or mixture

GHS08 Health hazard

Toxic to Reproduction 1B H360 May damage fertility or the unborn child.

Label elements**GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).**Hazard pictograms** GHS08**Signal word** Danger**Hazard-determining components of labeling:**

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

Hazard statements

May damage fertility or the unborn child.

Precautionary statements

Obtain special instructions before use.

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

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

IF exposed or concerned: Get medical advice/attention.

Store locked up.

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

Classification system:**NFPA ratings (scale 0 - 4)**

Health = 0

Fire = 1

Reactivity = 0

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HMIS-ratings (scale 0 - 4)

HEALTH	*0	Health = *0
FIRE	1	Fire = 1
REACTIVITY	0	Reactivity = 0

Other hazards**Results of PBT and vPvB assessment****PBT:** Not applicable.**vPvB:** Not applicable.

* 3 Composition/information on ingredients

Chemical characterization: Mixtures**Description:** Mixture of the substances listed below with nonhazardous additions.**Dangerous components:**

CAS: 30989-05-0	Tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl]orthoborate	5-25%
CAS: 110-97-4	1,1'-iminodipropan-2-ol	0.5-5%
CAS: 111-77-3	2-(2-methoxyethoxy)ethanol	0-1%

* 4 First-aid measures

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.

Information for doctor:**Most important symptoms and effects, both acute and delayed** No further relevant information available.**Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

5 Fire-fighting measures

Extinguishing media**Suitable extinguishing agents:**CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.**Special hazards arising from the substance or mixture** No further relevant information available.**Advice for firefighters****Protective equipment:** No special measures required.

* 6 Accidental release measures

Personal precautions, protective equipment and emergency procedures Not required.**Environmental precautions:**

Dilute with plenty of water.

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

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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.

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.

Protective Action Criteria for Chemicals

PAC-1:

CAS: 111-77-3	2-(2-methoxyethoxy)ethanol	3.4 ppm
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PAC-2:

CAS: 111-77-3	2-(2-methoxyethoxy)ethanol	180 mg/m3
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PAC-3:

CAS: 111-77-3	2-(2-methoxyethoxy)ethanol	1100 mg/m3
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* 7 Handling and storage

Handling:

Precautions for safe handling Open and handle receptacle with care.

Information about protection against explosions and fires: Keep respiratory protective device available.

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 receptacle tightly sealed.

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

* 8 Exposure controls/personal protection

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

Control parameters

Components 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 that were valid during the creation were used as basis.

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.

Breathing equipment: 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

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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 trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

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

* 9 Physical and chemical properties

Information on basic physical and chemical properties

General Information

Appearance:

Form:	Liquid
Color:	Yellow/orange
Odor:	Characteristic
Odor threshold:	Not determined.

pH-value: Not applicable.

Change in condition

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	>260 °C (>500 °F)

Flash point: >100 °C (>212 °F)

Flammability: Not applicable.

Auto igniting: >400 °C (>752 °F)

Decomposition temperature: Not determined.

Ignition temperature: Product is not selfigniting.

Danger of explosion: Product does not present an explosion hazard.

Explosion limits:

Lower:	0.7 Vol %
Upper:	22 Vol %

Vapor pressure at 20 °C (68 °F): 0 hPa

Density at 20 °C (68 °F): 0.98 g/cm³ (8.1781 lbs/gal)

Relative density: Not determined.

Vapor 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.

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Solvent content:	
VOC content:	<9.8 g/l / <0.08 lb/gal
Other information	No further relevant information available.

* 10 Stability and reactivity

Reactivity No further relevant information available.**Chemical stability****Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.**Possibility of hazardous reactions** No dangerous reactions known.**Conditions to avoid** No further relevant information available.**Incompatible materials:** No further relevant information available.**Hazardous decomposition products:** No dangerous decomposition products known.

* 11 Toxicological information

Information on toxicological effects**Acute toxicity:****LD/LC50 values that are 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)

Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations:

Carcinogenic categories**IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

NTP (National Toxicology Program)

None of the ingredients is listed.

OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

* 12 Ecological information

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)

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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)

Persistence and degradability No further relevant information available.

Behavior in environmental systems:

Bioaccumulative potential No further relevant information available.

Mobility in soil No further relevant information available.

Ecotoxicological effects:

Other information: Do not discharge into drains, surface waters or groundwater.

Additional ecological information:

General notes:

Water hazard class 1 (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.

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

Other adverse effects No further relevant information available.

13 Disposal considerations

Waste treatment methods

Recommendation:

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

Uncleaned packagings:

Recommendation: Disposal must be made according to official regulations.

Recommended cleansing agent: Water, if necessary with cleansing agents.

14 Transport information

UN-Number DOT, ADR, IMDG, IATA	Void
UN proper shipping name DOT, ADR, ADN, IMDG, IATA	Void
Transport hazard class(es) DOT, ADR, ADN, IMDG, IATA Class	Void
Packing group DOT, ADR, IMDG, IATA	Void
Environmental hazards: Marine pollutant:	No
Special precautions for user	Not applicable.
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
UN "Model Regulation":	Void

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*15 Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture
No further relevant information available.

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Section 355 (extremely hazardous substances):

None of the ingredient is listed.

Section 313 (Specific toxic chemical listings):

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

TSCA (Toxic Substances Control Act):

Castor oil	ACTIVE
1,1'-iminodipropan-2-ol	ACTIVE
2-(2-methoxyethoxy)ethanol	ACTIVE

Hazardous Air Pollutants

None of the ingredients is listed.

Proposition 65

Chemicals known to cause cancer:

None of the ingredients is listed.

Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

Carcinogenity categories

EPA (Environmental Protection Agency)

None of the ingredients is listed.

TLV (Threshold Limit Value)

None of the ingredients is listed.

NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).

Hazard pictograms GHS08

Signal word Danger

Hazard-determining components of labeling:

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

Hazard statements

May damage fertility or the unborn child.

Precautionary statements

Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
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Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

* 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.

Contact:**Date of preparation / last revision** 02/21/2025 / -**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

DOT: US Department of Transportation

IATA: International Air Transport Association

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)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Toxic to Reproduction 1B: Reproductive toxicity – Category 1B

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

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