

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 04.03.2022

Version number 5

Revision: 03.03.2022

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

- **1.1 Product identifier**
- **Trade name:** *Exakto-Form Isolierflüssigkeit*
- **Article number:** 520 0021 0
- **1.2 Relevant identified uses of the substance or mixture and uses advised against:**
No further relevant information available.
- **Application of the substance / the mixture:** *Insulating Liquid.*
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
*bredent GmbH & Co.KG
Weißenhornner Straße 2
89250 Senden
Tel: +49 (0) 7309/872-0
Fax: +49 (0) 7309/872-24*
- **Further information obtainable from:**
*R & D
e-mail: R.D@bredent.com*
- **1.4 Emergency telephone number:** *(001) 352 323 3500*

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



flame

Flam. Liq. 2 H225 Highly flammable liquid and vapour.



health hazard

Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.



environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



STOT SE 3 H336 May cause drowsiness or dizziness.

- **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** *GHS02, GHS07, GHS08, GHS09*
- **Signal word** *Danger*
- **Hazard-determining components of labelling:**
*Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics
Hydrocarbons, C11-C12, isoalkanes, <2% aromatics*
- **Hazard statements**
*H225 Highly flammable liquid and vapour.
H336 May cause drowsiness or dizziness.
H304 May be fatal if swallowed and enters airways.
H411 Toxic to aquatic life with long lasting effects.*

(Contd. on page 2)

GB

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 04.03.2022

Version number 5

Revision: 03.03.2022

Trade name: Exakto-Form Isolierflüssigkeit

(Contd. of page 1)

Precautionary statements

- P210** Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P261** Avoid breathing dust/fume/gas/mist/vapours/spray.
- P301+P310** IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
- P331** Do NOT induce vomiting.
- P303+P361+P353** IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
- P403+P233** Store in a well-ventilated place. Keep container tightly closed.
- P403+P235** Store in a well-ventilated place. Keep cool.

2.3 Other hazards
Results of PBT and vPvB assessment

- **PBT:** Not applicable.
- **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:

EC number: 920-750-0	Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics Flam. Liq. 2, H225 Asp. Tox. 1, H304 Aquatic Chronic 2, H411 STOT SE 3, H336	50-100%
EC number: 918-167-1	Hydrocarbons, C11-C12, isoalkanes, <2% aromatics Flam. Liq. 3, H226 Asp. Tox. 1, H304	2.5-10%
CAS: 52933-07-0 EINECS: 258-261-3	Phosphoric acid, isotridecyl ester Repr. 1B, H360 Eye Dam. 1, H318 Aquatic Chronic 2, H411 Skin Irrit. 2, H315	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:** If skin irritation continues, consult a doctor.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:**
A person vomiting while laying on their back should be turned onto their side.
Call a doctor 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, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet

5.2 Special hazards arising from the substance or mixture

In case of fire, the following can be released:

(Contd. on page 3)

GB

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 04.03.2022

Version number 5

Revision: 03.03.2022

Trade name: Exakto-Form Isolierflüssigkeit

(Contd. of page 2)

Nitrogen oxides (NO_x)

Carbon monoxide (CO)

· **5.3 Advice for firefighters**

· **Protective equipment:** Wear self-contained respiratory protective device.

· **Additional information**

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

Collect contaminated fire fighting water separately. It must not enter the sewage system.

SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation

Wear protective clothing.

Use respiratory protective device against the effects of fumes/dust/aerosol.

Wear protective equipment. Keep unprotected persons away.

· **6.2 Environmental precautions:** 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).

Ensure adequate ventilation.

Do not flush with water or aqueous cleansing agents

· **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** Ensure good ventilation/exhaustion at the workplace.

· **Information about fire - and explosion protection:**

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

· **7.2 Conditions for safe storage, including any incompatibilities**

· **Storage:**

· **Requirements to be met by storerooms and receptacles:**

Store only in the original receptacle.

Store in a cool location.

· **Information about storage in one common storage facility:** Store away from foodstuffs.

· **Further information about storage conditions:**

Protect from frost.

Protect from humidity and water.

Keep container tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

· **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 item 7.

· **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.

(Contd. on page 4)

GB

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 04.03.2022

Version number 5

Revision: 03.03.2022

Trade name: **Exakto-Form Isolierflüssigkeit**

(Contd. of page 3)

· **8.2 Exposure controls**· **Personal protective equipment:**· **General protective and hygienic measures:**

Use skin protection cream for skin protection.

Do not eat or drink while working.

The usual precautionary measures are to be adhered to when handling chemicals.

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

· **Respiratory protection:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

· **Protection of hands:**

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

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

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

· **Material of gloves**

Butyl rubber, BR

Nitrile rubber, NBR

Recommended thickness of the material: ≥ 0.4 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. 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 penetration time has to be at least 480 minutes (Permeation according to EN 374 Part 3: Level 6).

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

· **Eye protection:**

Tightly sealed goggles

· **Body protection:** Protective work clothing* **SECTION 9: Physical and chemical properties**· **9.1 Information on basic physical and chemical properties**· **General Information**· **Appearance:****Form:** Fluid**Colour:** White· **Odour:** Characteristic· **Odour threshold:** Not determined.· **pH-value:** Mixture is non-soluble (in water).· **Change in condition****Melting point/freezing point:** Undetermined.**Initial boiling point and boiling range:** 80-180 °C· **Flash point:** <10 °C· **Flammability (solid, gas):** Not applicable.· **Decomposition temperature:** Not determined.

(Contd. on page 5)

GB

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 04.03.2022

Version number 5

Revision: 03.03.2022

Trade name: *Exakto-Form Isolierflüssigkeit*

(Contd. of page 4)

· Auto-ignition temperature:	Product is not selfigniting.
· Explosive properties:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· Explosion limits: Lower: Upper:	1.1 Vol % 7.4 Vol %
· Vapour pressure at 20 °C:	34.7 hPa
· Density at 20 °C: · Relative density · Vapour density · Evaporation rate	0.7 g/cm ³ Not determined. Not determined. Not determined.
· Solubility in / Miscibility with water:	Not miscible or difficult to mix.
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity: Dynamic: Kinematic at 40 °C:	Not determined. <6.9 mm ² /s
· Solvent content:	
Solids content:	0.0 %
· 9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **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.
- **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)**
- **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**
May cause drowsiness or dizziness.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard**
Harmful: may cause lung damage if swallowed.

(Contd. on page 6)

GB

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 04.03.2022

Version number 5

Revision: 03.03.2022

Trade name: *Exakto-Form Isolierflüssigkeit*

May be fatal if swallowed and enters airways.

(Contd. of page 5)



SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **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.
- **Additional ecological information:**
- **General notes:**
Water hazard class 3 (German Regulation) (Self-assessment): extremely hazardous for water
Do not allow product to reach ground water, water course or sewage system, even in small quantities.
Danger to drinking water if even extremely small quantities leak into the ground.
- **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.

SECTION 14: Transport information

- | | |
|--|---|
| · 14.1 UN-Number | |
| · ADR, IMDG, IATA | UN3295 |
| · 14.2 UN proper shipping name | |
| · ADR | 3295 HYDROCARBONS, LIQUID, N.O.S., ENVIRONMENTALLY HAZARDOUS |
| · IMDG | HYDROCARBONS, LIQUID, N.O.S. (amines, hydrogenated tallow alkyl), MARINE POLLUTANT |
| · IATA | HYDROCARBONS, LIQUID, N.O.S. |
| · 14.3 Transport hazard class(es) | |
| · ADR, IMDG | |
| |  |
| · Class | 3 Flammable liquids. |
| · Label | 3 |
| · IATA | |
| |  |
| · Class | 3 Flammable liquids. |

(Contd. on page 7)

GB

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 04.03.2022

Version number 5

Revision: 03.03.2022

Trade name: Exakto-Form Isolierflüssigkeit

(Contd. of page 6)

· Label	3
· 14.4 Packing group · ADR, IMDG, IATA	III
· 14.5 Environmental hazards: · Marine pollutant: · Special marking (ADR):	Product contains environmentally hazardous substances: amines, hydrogenated tallow alkyl No Symbol (fish and tree) Symbol (fish and tree)
· 14.6 Special precautions for user · Hazard identification number (Kemler code): · EMS Number: · Stowage Category	Warning: Flammable liquids. 30 F-E,S-D A
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR · Limited quantities (LQ) · Excepted quantities (EQ) · Transport category · Tunnel restriction code	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml 3 D/E
· IMDG · Limited quantities (LQ) · Excepted quantities (EQ)	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· UN "Model Regulation":	UN 3295 HYDROCARBONS, LIQUID, N.O.S., 3, III, ENVIRONMENTALLY HAZARDOUS

SECTION 15: Regulatory information

· **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

· **Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the CLP regulation.

· **Hazard pictograms** GHS02, GHS07, GHS08, GHS09

· **Signal word** Danger

· **Hazard-determining components of labelling:**

Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics

Hydrocarbons, C11-C12, isoalkanes, <2% aromatics

· **Hazard statements**

H225 Highly flammable liquid and vapour.

H336 May cause drowsiness or dizziness.

H304 May be fatal if swallowed and enters airways.

H411 Toxic to aquatic life with long lasting effects.

· **Precautionary statements**

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.

P331 Do NOT induce vomiting.

(Contd. on page 8)

GB

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 04.03.2022

Version number 5

Revision: 03.03.2022

Trade name: Exakto-Form Isolierflüssigkeit

(Contd. of page 7)

P303+P361+P353 *IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].*

P403+P233 *Store in a well-ventilated place. Keep container tightly closed.*

P403+P235 *Store in a well-ventilated place. Keep cool.*

- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **Seveso category**
E2 Hazardous to the Aquatic Environment
P5c FLAMMABLE LIQUIDS
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 200 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 500 t
- **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**
H225 Highly flammable liquid and vapour.
H226 Flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H336 May cause drowsiness or dizziness.
H360 May damage fertility or the unborn child.
H411 Toxic to aquatic life with long lasting effects.
- **Department issuing SDS:** R & D
- **Contact:** R & D
- **Abbreviations and acronyms:**
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ICAO: International Civil Aviation Organisation
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)
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Flam. Liq. 2: Flammable liquids – Category 2
Flam. Liq. 3: Flammable liquids – Category 3
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Repr. 1B: Reproductive toxicity – Category 1B
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
Asp. Tox. 1: Aspiration hazard – Category 1
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2
- *** Data compared to the previous version altered.**
Due to new legal changes the material safety data sheet has completely been revised.

GB