

Safety Data Sheet

according to Regulation (EC) No 1907/2006

BEST-KL 6084

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

Product identifier

BEST-KL 6084

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

Use of the substance/mixture

Adhesives, sealants

Uses advised against

none/none

Details of the supplier of the safety data sheet

| | | | |
|-------------------------|---|---|--|
| Company name: | Best Klebstoffe GmbH & Co. KG | | |
| Street: | Gewerbestraße 10-14 | | |
| Place: | D-86981 Kinsau | | |
| Telephone: | +49 (0)8869-91384-0 | Telefax: +49 (0)8869-91384-15 | |
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| Responsible Department: | Dr. Timo Gans-Eichler Chemieberatung Raesfeldstr. 22 48149 Münster | e-mail: tge-consult@t-online.de Tel.: +49 (0)251/924520-60 www.tge-consult.de | |

Emergency telephone: +49 (0)8869-91384-0 (08:00 - 17:00)

SECTION 2: Hazards identification

Classification of the substance or mixture

Indications of danger : Irritant

R-phrases:

May cause sensitization by skin contact.

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

GHS classification

Hazard categories:

Respiratory/skin sensitization: Skin Sens. 1

Hazardous to the aquatic environment: Aquatic Chronic 3

Hazard Statements:

May cause an allergic skin reaction.

Harmful to aquatic life with long lasting effects.

Label elements

Signal word: Warning

Pictograms: GHS07



Hazard statements

H317 May cause an allergic skin reaction.

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

P272 Contaminated work clothing should not be allowed out of the workplace.

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| | |
|-----------|---|
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| P302+P352 | IF ON SKIN: Wash with plenty of soap and water. |
| P333+P313 | If skin irritation or rash occurs: Get medical advice/attention. |
| P501 | Dispose of contents/container to disposal according to official regulations . |

SECTION 3: Composition/information on ingredients

Mixtures

Hazardous components

| EC No | Chemical name | Quantity |
|--------------|---|-----------|
| CAS No | Classification | |
| Index No | GHS classification | |
| REACH No | | |
| 219-207-4 | 7-oxabicyclo[4.1.0]hept-3-ylmethyl 7-oxabicyclo[4.1.0]heptane-3-carboxylate | 80 - 85 % |
| 2386-87-0 | R43-52-53 | |
| | Skin Sens. 1, Aquatic Chronic 3; H317 H412 | |
| 403-500-0 | diphenyl(4-phenylthiophenyl)sulfonium hexafluoroantimonate | 1 - 5 % |
| | N R43-50-53 | |
| 051-006-00-5 | Skin Sens. 1, Aquatic Acute 1, Aquatic Chronic 1; H317 H400 H410 | |
| 203-572-1 | propylene carbonate | 1 - 5 % |
| 108-32-7 | Xi R36 | |
| 607-194-00-1 | Eye Irrit. 2; H319 | |

Full text of R- and H-phrases: see section 16.

Further Information

Note: This hazard characteristics refer to the properties of pure ingredients, for the identification of the preparation (product), see Section 2 and 16.
 Product does not contain SVHC substances.

SECTION 4: First aid measures

Description of first aid measures

General information

In case of accident or if you feel unwell, seek medical advice immediately (show safety data sheet if possible).

After inhalation

Provide fresh air. If symptoms persist, seek medical advice.

After contact with skin

After contact with skin, wash immediately with: Water and soap. In case of skin irritation, seek medical treatment.

After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water. In case of troubles or persistent symptoms, consult an ophthalmologist.

After ingestion

Do not induce vomiting. Rinse mouth thoroughly with water. Let water be swallowed in little sips (dilution effect). Never give anything by mouth to an unconscious person or a person with cramps. Call a POISON CENTER or doctor/physician.

SECTION 5: Firefighting measures

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Extinguishing media

Suitable extinguishing media

Foam. Carbon dioxide. Extinguishing powder. Water spray.

Extinguishing media which must not be used for safety reasons

High power water jet.

Special hazards arising from the substance or mixture

Can be released in case of fire: Can be released in case of fire: Carbon monoxide. Carbon dioxide (CO₂). Sulfur oxides

Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Wear a self-contained breathing apparatus and chemical resistant suit.

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water. Extinguishing materials should be selected according to the surrounding area. Use water spray/stream to protect personnel and to cool endangered containers.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

See protective measures under point 7 and 8.
Provide adequate ventilation.

Environmental precautions

Do not empty into drains or the aquatic environment.

Methods and material for containment and cleaning up

Collect mechanically.
Treat the assimilated material according to the section on waste disposal.
Clear contaminated area thoroughly. Clean contaminated objects and areas thoroughly observing environmental regulations.

SECTION 7: Handling and storage

Precautions for safe handling

Advice on safe handling

Wear suitable protective clothing. (Refer to chapter 8.)

Advice on protection against fire and explosion

Usual measures for fire prevention.

Further information on handling

Avoid contact with skin, eye and clothing.

Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed in a cool, well-ventilated place. Keep container dry.

Advice on storage compatibility

Do not store together with: Oxidizing solids. Oxidizing liquids. Explosives. Food and fodder.

Further information on storage conditions

Protect against: Light. UV-radiation/sunlight. heat. cooling moisture.

SECTION 8: Exposure controls/personal protection

Control parameters

Additional advice on limit values

To date, no national limit values exist.

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Exposure controls



Occupational exposure controls

In case of open handling, use devices with built-in suction where possible. If suction of the immediate vicinity is impossible or insufficient, adequate airing of the working place must be ensured.

Protective and hygiene measures

Always close containers tightly after the removal of product. Do not eat, drink, smoke or sneeze at the workplace. Wash hands before breaks and at the end of work. Remove contaminated clothing immediately and dispose off safely. Wash contaminated clothing prior to re-use. Used working clothes should not be used outside the work area. Street clothing should be stored separately from work clothing.

Respiratory protection

Respiratory protection required in case of:
 Generation/formation of aerosols
 Generation/formation of mist
 Suitable respiratory protective equipment:
 Combination filter device (DIN EN 141).. Type : A / P2/P3

Hand protection

Pull-over gloves of rubber. DIN EN 374
 Suitable material:
 Butyl rubber. (0,5 mm) (> 120 min.)
 Before using check leak tightness / impermeability. In case of reutilization, clean gloves before taking off and store in well-aired place.
 Protect skin by using skin protective cream.

Eye protection

Suitable eye protection: Tightly sealed safety glasses. DIN EN 166

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Physical state: liquid
 Colour: colourless to whitish
 Odour: characteristic

Test method

pH-Value: n/a

Changes in the physical state

Melting point: not determined
 Boiling point: not determined
 Flash point: >100 °C
 Lower explosion limits: not determined
 Upper explosion limits: not determined
 Ignition temperature: not determined
 Vapour pressure: not determined
 (at 20 °C)
 Density: ~1,1 g/cm³
 Water solubility: practically insoluble

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 Viscosity / dynamic:
 (at 25 °C)

1.000 mPas/thix

SECTION 10: Stability and reactivity

Chemical stability

Stable under normal storage and handling conditions.

Conditions to avoid

Protect against: Light. UV-radiation/sunlight. heat. cooling moisture.

Incompatible materials

Materials to avoid: Oxidizing agents, strong. Strong acid. Alkalis (alkalis).

Hazardous decomposition products

 Can be released in case of fire: Can be released in case of fire: Carbon monoxide. Carbon dioxide (CO₂).
 Sulfur oxides

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

| CAS No | Chemical name | | | | |
|-----------|---|---------------|-------------|---------|--------------|
| | Exposure routes | Method | Dose | Species | Source |
| 2386-87-0 | 7-oxabicyclo[4.1.0]hept-3-ylmethyl 7-oxabicyclo[4.1.0]heptane-3-carboxylate | | | | |
| | oral | LD50 | 5000 mg/kg | Rat. | ECHA dossier |
| | dermal | LD50 | 23400 mg/kg | Rabbit. | |
| | diphenyl(4-phenylthiophenyl)sulfonium hexafluoroantimonate | | | | |
| | oral | LD50 mg/kg | > 5000 | Rat. | ECHA dossier |
| 108-32-7 | propylene carbonate | | | | |
| | oral | LD50 mg/kg | > 5000 | Rat. | ECHA Dossier |

Irritation and corrosivity

Irritant effect on the eye: slightly irritant but not relevant for classification.

Irritant effect on the skin: slightly irritant but not relevant for classification.

Sensitising effects

Respiratory or skin sensitisation:

People who suffer from skins problems, asthma, allergies, chronic or recurring respiratory illnesses must not be deployed in processes, which use this substance.

Severe effects after repeated or prolonged exposure

7-oxabicyclo[4.1.0]hept-3-ylmethyl 7-oxabicyclo[4.1.0]heptane-3-carboxylate:

Subchronic oral toxicity: NOAEL = 5 mg/kg (90d) Rat.

propylene carbonate:

 Subchronic inhalative toxicity: NOAEC = 100 mg/m³ (90d) Rat.

Carcinogenic/mutagenic/toxic effects for reproduction

7-oxabicyclo[4.1.0]hept-3-ylmethyl 7-oxabicyclo[4.1.0]heptane-3-carboxylate: In-vitro mutagenicity: positive.

diphenyl(4-phenylthiophenyl)sulfonium hexafluoroantimonate: In-vitro mutagenicity: positive.

propylene carbonate: Ames test negative.

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SECTION 12: Ecological information

Toxicity

| CAS No | Chemical name | Method | Dose | h | Species | Source |
|-----------|---|--------|-------------|----|--------------------------------|--------------|
| | Aquatic toxicity | | | | | |
| 2386-87-0 | 7-oxabicyclo[4.1.0]hept-3-ylmethyl 7-oxabicyclo[4.1.0]heptane-3-carboxylate | | | | | |
| | Acute fish toxicity | LC50 | 24 mg/l | 96 | Oncorhynchus mykiss | ECHA dossier |
| | Acute algae toxicity | ErC50 | >110 mg/l | 72 | Pseudokirchnerella subcapitata | ECHA dossier |
| | diphenyl(4-phenylthiophenyl)sulfonium hexafluoroantimonate | | | | | |
| | Acute crustacea toxicity | EC50 | 0,32 mg/l | 48 | daphnia magna | ECHA dossier |
| 108-32-7 | propylene carbonate | | | | | |
| | Acute fish toxicity | LC50 | > 1000 mg/l | 96 | Cyprinus carpio | ECHA Dossier |
| | Acute crustacea toxicity | EC50 | > 1000 mg/l | 48 | daphnia magna | ECHA Dossier |

Persistence and degradability

7-oxabicyclo[4.1.0]hept-3-ylmethyl 7-oxabicyclo[4.1.0]heptane-3-carboxylate:
 OECD 301B / ISO 9439 / EEC 92/69 annex V, C.4-C = 71% (10d window failed)
 propylene carbonate:
 OECD 301B / ISO 9439 / EEC 92/69 annex V, C.4-C > 80% (28d)

Bioaccumulative potential

No indication of bio-accumulation potential.

Partition coefficient n-octanol/water

| CAS No | Chemical name | Log Pow |
|-----------|---|---------|
| 2386-87-0 | 7-oxabicyclo[4.1.0]hept-3-ylmethyl 7-oxabicyclo[4.1.0]heptane-3-carboxylate | 1,34 |
| | diphenyl(4-phenylthiophenyl)sulfonium hexafluoroantimonate | 2,61 |

Mobility in soil

No information available.

Results of PBT and vPvB assessment

No information available.

SECTION 13: Disposal considerations

Waste treatment methods

Advice on disposal

Consult the local waste disposal expert about waste disposal.

Waste disposal number of waste from residues/unused products

080409 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU of adhesives and sealants (including waterproofing products); waste adhesives and sealants containing organic solvents or other dangerous substances
 Classified as hazardous waste.

Waste disposal number of used product

080409 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU of adhesives and sealants (including waterproofing products); waste adhesives and sealants containing organic solvents or other dangerous substances
 Classified as hazardous waste.

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Contaminated packaging

Cleaned containers may be recycled.

SECTION 14: Transport information

Land transport (ADR/RID)

UN proper shipping name: No dangerous good in sense of this transport regulation.

SECTION 15: Regulatory information

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

EU regulatory information

1999/13/EC (VOC): 0 % (1999/13/EG)

Additional information

1967/548 (2008/58, 30. ATP/ 31. ATP); 1991/689 (2001/118); 1999/13; 2004/42; 648/2004; 1907/2006 (Reach); 1272/2008; 75/324/EWG (2008/47/EG)

National regulatory information

Employment restrictions: Observe employment restrictions for young people. Observe employment restrictions for child bearing mothers and nursing. Observe employment restrictions for women of child-bearing age.

Water contaminating class (D): 1 - slightly water contaminating

SECTION 16: Other information

Changes

Rev 1,00 Initial release 05.03.12

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)

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations

Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

NOAEL: No observed adverse effect level

Full text of R-phrases referred to under sections 2 and 3

36 Irritating to eyes.

43 May cause sensitization by skin contact.

50 Very toxic to aquatic organisms.

52 Harmful to aquatic organisms.

52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

53 May cause long-term adverse effects in the aquatic environment.

Full text of H-Statements referred to under sections 2 and 3

H317 May cause an allergic skin reaction.

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| | |
|------|---|
| H319 | Causes serious eye irritation. |
| H400 | Very toxic to aquatic life. |
| H410 | Very toxic to aquatic life with long lasting effects. |
| H412 | Harmful to aquatic life with long lasting effects. |

Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)