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

1.1 Product identifier

Trade name: Drei Bond 1209

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

General use: Silicone sealant
Reserved for industrial and professional use.

1.3 Details of the supplier of the safety data sheet

Company name: Drei Bond GmbH
Street/POB-No.: Carl-Zeiss-Ring 13
Postal Code, city: 85737 Ismaning
WWW: www.dreibond.de
E-mail: info@dreibond.de
Telephone: +49 89 962 427-0
Telefax: +49 89 962 427-19

Department responsible for information:
E-mail: datenblaetter@dreibond.de
Telephone: +49 89 962 427-0

1.4 Emergency telephone number

GIZ-Nord, Göttingen, Germany,
Telephone: +49 551-19240

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to EC regulation 1272/2008 (CLP)

Skin Irrit. 2; H315 Causes skin irritation.
Eye Irrit. 2; H319 Causes serious eye irritation.
Skin Sens. 1; H317 May cause an allergic skin reaction.

2.2 Label elements

Labelling (CLP)

Signal word: **Warning**

Hazard statements:
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.

Precautionary Statements:

P280 Wear protective gloves/protective clothing/eye protection.

P333+P337+P313 If skin irritation or rash occurs or If eye irritation persists: Get medical advice/attention.

P363 Wash contaminated clothing before reuse.

Special labelling

Text for labelling: Contains Butan-2-one O,O',O''-(methylsilylidyne)trioxime, 3-Aminopropyltriethoxysilane, Butan-2-one O,O',O''-(vinylsilylidyne)trioxime and 2-Butanone oxime (MEKO).

2.3 Other hazards

Hydrolysis product(s): under the influence of moisture, product segregates small quantities of butanone-2-oxim (CAS 96-29-7). This can cause irritation of the eyes and sensitizing. Long-term exposure to MEKO may damage the mucous membrane of the nose. Long-term high dose inhalation of MEKO may cause irreversible damage to health. Special danger of slipping by leaking/spilling product.

Results of PBT and vPvB assessment:

This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

SECTION 3: Composition / information on ingredients

3.1 Substances: not applicable

3.2 Mixtures

Chemical characterisation: Mixture: Polydimethylsiloxane, crosslinking agent, fillers, auxiliaries.

Hazardous ingredients:

Ingredient	Designation	Content	Classification
EC No. 245-366-4 CAS 22984-54-9	Butan-2-one O,O',O''-(methylsilylidyne) trioxime	< 8 %	Skin Irrit. 2; H315. Eye Irrit. 2; H319. Skin Sens. 1; H317.
EC No. 218-747-8 CAS 2224-33-1	Butan-2-one O,O',O''-(vinylsilylidyne) trioxime	< 2 %	Eye Dam. 1; H318. Skin Sens. 1; H317. STOT RE 2; H373.
EC No. 213-048-4 CAS 919-30-2	3-Aminopropyltriethoxysilane	< 1 %	Acute Tox. 4; H302. Skin Corr. 1B; H314. Skin Sens. 1; H317.
EC No. 202-496-6 CAS 96-29-7	2-Butanone oxime (MEKO)	< 0.5 %	Acute Tox. 4; H312. Eye Dam. 1; H318. Skin Sens. 1; H317. Carc. 2; H351.

Full text of H- and EUH-statements: see section 16.

Additional information: Under the influence of humidity this product may release further MEKO.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information: If medical advice is needed, have product container or label at hand.
First aider: Pay attention to self-protection!

In case of inhalation: Move victim to fresh air; if necessary, provide artificial respiration or oxygen. Seek medical treatment in case of troubles.

Following skin contact: Immediately clean with water and soap followed by thorough rinsing.
Take off immediately all contaminated clothing and wash it before reuse. In case of skin reactions, consult a physician.

After eye contact: Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Remove contact lenses, if present and easy to do. Continue rinsing. Subsequently consult an ophthalmologist.

After swallowing: If swallowed, rinse mouth with water (only if the person is conscious).
Immediately get medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Causes serious eye irritation. Causes skin irritation. May cause an allergic skin reaction.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media:

Water spray jet, extinguishing powder, alcohol resistant foam, carbon dioxide.

Extinguishing media which must not be used for safety reasons:

Full water jet

5.2 Special hazards arising from the substance or mixture

In case of fire may be liberated: Nitrogen oxides (NOx), silicon dioxide, carbon monoxide and carbon dioxide.

5.3 Advice for firefighters

Special protective equipment for firefighters:

Wear a self-contained breathing apparatus and chemical protective clothing.

Additional information: Hazchem-Code: -

Do not breathe fumes. Cool endangered containers with water spray and, if possible, remove from danger zone.
Do not allow water used to extinguish fire to enter drains, ground or waterways. You have to dispose of contaminated extinguishing water according to the regulations of the authorities.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid exposure. Eliminate all ignition sources if safe to do so. Avoid contact with skin and eyes.
Provide adequate ventilation. Do not breathe vapours.
Wear appropriate protective equipment. Take off immediately all contaminated clothing and wash it before reuse.
Keep unprotected people away.

6.2 Environmental precautions

Do not allow to penetrate into soil, waterbodies or drains. If necessary notify appropriate authorities.

6.3 Methods and material for containment and cleaning up

Allow the material to harden out. Take up mechanically, placing in appropriate containers for disposal.

Additional information: Special danger of slipping by leaking/spilling product.

6.4 Reference to other sections

Refer additionally to section 8 and 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advices on safe handling: Provide adequate ventilation, and local exhaust as needed.
Avoid exposure. Do not breathe vapour. Avoid contact with skin, eyes, and clothing.
Wear appropriate protective equipment. Take off immediately all contaminated clothing and wash it before reuse.
Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Work place should be equipped with a shower and an eye rinsing apparatus.

Precautions against fire and explosion:
Keep away from sources of ignition - No smoking.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storerooms and containers:
Keep container tightly closed in a cool, well-ventilated place.
Keep container dry. Protect from moisture contamination.

Hints on joint storage: Do not store together with Water.

Further details: Under the influence of humidity this product releases butanone-oxime (MEKO).

7.3 Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values:

CAS No.	Designation	Type	Limit value
96-29-7	2-Butanone oxime (MEKO)	Ireland: 15 minutes Ireland: 8 hours	33 mg/m³; 10 ppm 10 mg/m³; 3 ppm

8.2 Exposure controls

Provide good ventilation and/or an exhaust system in the work area.

Personal protection equipment

Occupational exposure controls

Respiratory protection: Respiratory protection must be worn whenever the WEL levels have been exceeded. Use filter type A according to EN 14387.
The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product.

Hand protection: Protective gloves according to EN 374.
Glove material: Nitrile rubber - Layer thickness: 0.4 mm.
Breakthrough time: >480 min.
Butyl caoutchouc (butyl rubber) - Layer thickness: 0.5 mm.
Breakthrough time: >480 min.
Fluororubber (Viton) - Layer thickness: 0.5 mm.
Breakthrough time: >480 min.
Unsuitable materials: PVC, natural rubber (Caoutchouc) and chloroprene rubber.
Observe glove manufacturer's instructions concerning penetrability and breakthrough time.

Eye protection: Tightly sealed goggles according to EN 166.

Body protection: Wear suitable protective clothing.

General protection and hygiene measures:
Avoid exposure. Do not breathe vapour. Avoid contact with skin, eyes, and clothing. Keep away from heat sources, sparks and open flames.
Take off immediately all contaminated clothing and wash it before reuse.
Do not eat, drink or smoke when using this product. Wash hands before breaks and after work.
Work place should be equipped with a shower and an eye rinsing apparatus.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	Form: Pasty Product cures in the presence of moisture. Colour: transparent
Odour:	characteristic
Odour threshold:	No data available
pH value:	approx. 7
Melting point/freezing point:	No data available
Initial boiling point and boiling range:	No data available
Flash point/flash point range:	> 120 °C
Evaporation rate:	No data available
Flammability:	No data available
Explosion limits:	No data available
Vapour pressure:	No data available
Vapour density:	No data available
Density:	at 25 °C: 1.09 g/mL
Water solubility:	insoluble, hydrolyzes with water
Partition coefficient: n-octanol/water:	No data available
Auto-ignition temperature:	> 400 °C
Decomposition temperature:	No data available

Viscosity, dynamic:	at 25 °C: pasty
Explosive properties:	No data available
Oxidizing characteristics:	No data available

9.2 Other information

Additional information:	No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

Product cures in the presence of moisture.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Reaction with water or moist air.

10.4 Conditions to avoid

Protect from humidity and water. Keep away from sources of ignition.

10.5 Incompatible materials

Water, acids, alkalis

10.6 Hazardous decomposition products

Under the influence of humidity this product releases butanone-oxime (MEKO).
Thermal breakdown of this product during fire or very high heat condition may evolve the following hazardous decomposition products: Nitrogen oxides (NOx), silicon dioxide, carbon monoxide and carbon dioxide.

Thermal decomposition:	No data available

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Toxicological effects: The statements are derived from the properties of the single components. No toxicological data is available for the product as such.
Acute toxicity (oral): Based on available data, the classification criteria are not met.
ATEmix calculated: > 5,000 mg/kg

Acute toxicity (dermal): Based on available data, the classification criteria are not met.
ATEmix calculated: > 5,000 mg/kg

Acute toxicity (inhalative): Lack of data.

Skin corrosion/irritation: Skin Irrit. 2; H315 = Causes skin irritation.

Serious eye damage/irritation: Eye Irrit. 2; H319 = Causes serious eye irritation.

Sensitisation to the respiratory tract: Lack of data.

Skin sensitisation: Skin Sens. 1; H317 = May cause an allergic skin reaction.

Germ cell mutagenicity/Genotoxicity: 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.

Effects on or via lactation: Lack of data.

Specific target organ toxicity (single exposure): Based on available data, the classification criteria are not met.

Specific target organ toxicity (repeated exposure): Based on available data, the classification criteria are not met.

Aspiration hazard: Based on available data, the classification criteria are not met.

Other information: Information about 2-Butanone oxime (MEKO, CAS 96-29-7):
LD50 Rat, oral: 2,463 mg/kg
LD50 Rat, dermal: > 1,000 mg/kg

Information about 3-Aminopropyltriethoxysilane:
LD50 Rat, oral: 1,500 mg/kg.

Symptoms

In case of inhalation: Potential hazards: (2-Butanone oxime (MEKO, CAS 96-29-7)):
Higher doses may have a narcotic effect.
May produce blood effects.

SECTION 12: Ecological information

12.1 Toxicity

Further details: No data available

12.2 Persistence and degradability

Further details: No data available

12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water:
No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

12.6 Other adverse effects

General information: Do not allow to penetrate into soil, waterbodies or drains.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Waste key number: 08 04 09* = Waste adhesives and sealants containing organic solvents or other dangerous substances.
MFSU = manufacture, formulation, supply and use
* = Evidence for disposal must be provided.

Recommendation: Incinerate as hazardous waste according to applicable local, state, and federal regulations.

Contaminated packaging

Recommendation: Dispose of waste according to applicable legislation. Empty carefully and completely, if possible.
Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

14.1 UN number

ADR/RID, IMDG, IATA-DGR:

not applicable

14.2 UN proper shipping name

ADR/RID, IMDG, IATA-DGR:

Not restricted

14.3 Transport hazard class(es)

ADR/RID, IMDG, IATA-DGR:

not applicable

14.4 Packing group

ADR/RID, IMDG, IATA-DGR:

not applicable

14.5 Environmental hazards

Marine pollutant: no

14.6 Special precautions for user

No dangerous good in sense of these transport regulations.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

No data available

SECTION 15: Regulatory information

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

National regulations - Great Britain

Hazchem-Code: -

No data available

National regulations - EC member states

Volatile organic compounds (VOC):

1 % by weight

Labelling of packaging with <= 125mL content

Signal word: **Warning**

Hazard statements:
H317 May cause an allergic skin reaction.

Precautionary Statements:
P280 Wear protective gloves/protective clothing/eye protection.
P333+P337+P313 If skin irritation or rash occurs or If eye irritation persists: Get medical advice/attention.
P363 Wash contaminated clothing before reuse.

15.2 Chemical Safety Assessment

For this mixture a chemical safety assessment is not required.

SECTION 16: Other information

Further information

Wording of the H-phrases under paragraph 2 and 3:

H302 = Harmful if swallowed.
H312 = Harmful in contact with skin.
H314 = Causes severe skin burns and eye damage.
H315 = Causes skin irritation.
H317 = May cause an allergic skin reaction.
H318 = Causes serious eye damage.
H319 = Causes serious eye irritation.
H351 = Suspected of causing cancer.
H373 = May cause damage to organs through prolonged or repeated exposure.

Abbreviations and acronyms:

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
OEL: Occupational Exposure Limit Value
AS/NZS: Australian Standards/New Zealand Standards
ATEmix: Acute Toxicity Estimate of mixture
CAS: Chemical Abstracts Service
CFR: Code of Federal Regulations
CLP: Classification, Labelling and Packaging
DMEL: Derived minimal effect level
DNEL: Derived no-effect level
EC: European Community
EN: European Standard
EU: European Union
MFSU: Manufacture, formulation, supply and use
IATA: International Air Transport Association
IBC Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
IMDG Code: International Maritime Dangerous Goods Code
LD50: Lethal dose 50%
MARPOL: Maritime Pollution: The International Convention for the Prevention of Pollution from Ships
OSHA: Occupational Safety and Health Administration
PBT: Persistent, bioaccumulative and toxic
PNEC: Predicted no-effect concentration
PVC: Polyvinyl chloride
REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals
RID: Regulations Concerning the International Carriage of Dangerous Goods by Rail
STOT RE: Specific target organ toxicity - repeated exposure
TLV: Threshold Limit Value
vPvB: Very persistent and very bioaccumulative
WEL: Workplace Exposure Limit

Reason of change: Changes in section 1: Trade name
Date of first version: 31/7/2017

Department issuing data sheet

Contact person: see section 1: Department responsible for information

The information in this data sheet has been established to our best knowledge and was up-to-date at time of revision. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.