We create chemistry

Safety Data Sheet
Basonat® LR 9056

1. Identification

Product identifier used on the label

Basonat® LR 9056

Recommended use of the chemical and restriction on use

Recommended use*: Raw material, for industrial use only
Recommended use*: for industrial use only

* The “Recommended use” identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

Details of the supplier of the safety data sheet

Company:
BASF CORPORATION
100 Park Avenue
Florham Park, NJ 07932, USA

Telephone: +1 973 245-6000

Emergency telephone number

24 Hour Emergency Response Information
CHEMTREC: 1-800-424-9300
BASF HOTLINE: 1-800-832-HELP (4357)

Other means of identification

Chemical family: polyfunctional polyisocyanate

2. Hazards Identification

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Classification of the product

Acute Tox.	4 (Inhalation - mist)	Acute toxicity
Skin Sens.	1	Skin sensitization
STOT SE	3 (irritating to respiratory system)	Specific target organ toxicity — single exposure
Aquatic Acute	3	Hazardous to the aquatic environment - acute

Aquatic Chronic	3	Hazardous to the aquatic environment - chronic

Label elements

Pictogram:

Signal Word:
Warning

Hazard Statement:

H332	Harmful if inhaled.
H317	May cause an allergic skin reaction.
H335	May cause respiratory irritation.
H402	Harmful to aquatic life.
H412	Harmful to aquatic life with long lasting effects.

Precautionary Statements (Prevention):

P280	Wear protective gloves.
P271	Use only outdoors or in a well-ventilated area.
P260	Do not breathe mist or vapour.
P273	Avoid release to the environment.
P272	Contaminated work clothing should not be allowed out of the workplace.

Precautionary Statements (Response):

P312	Call a POISON CENTER or physician if you feel unwell.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P333 + P313	If skin irritation or rash occurs: Get medical attention.
P362 + P364	Take off contaminated clothing and wash it before reuse.

Precautionary Statements (Storage):

P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Precautionary Statements (Disposal):

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

Hazards not otherwise classified

No specific dangers known, if the regulations/notes for storage and handling are considered.

3. Composition / Information on Ingredients

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

(OLIGOMER) Hexamethylene diisocyanate isocyanurate-type oligomers
CAS Number: 28182-81-2
Content (W/W): >= 50.0 - < 75.0%
Synonym: No data available.

Hexane, 1,6-diisocyanato-, homopolymer, polyethylene glycol mono-Me ether-blocked
CAS Number: 160994-68-3
Content (W/W): >= 25.0 - < 50.0%
Synonym: No data available.

4. First-Aid Measures

Description of first aid measures

General advice:
Immediately remove contaminated clothing.

If inhaled:
If difficulties occur after vapour/aerosol has been inhaled, remove to fresh air and seek medical attention.

If on skin:
Wash affected areas thoroughly with soap and water. Seek medical attention.

If in eyes:
Wash affected eyes for at least 15 minutes under running water with eyelids held open. If irritation develops, seek medical attention.

If swallowed:
Immediately rinse mouth and then drink 200 - 300 ml water, do not induce vomiting, seek medical attention. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions.

Most important symptoms and effects, both acute and delayed

Symptoms: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11.

Information on: (OLIGOMER) Hexamethylene diisocyanate isocyanurate-type oligomers
Symptoms: Overexposure may cause:, Eye irritation, skin irritation, erythema, nausea, headache, vomiting, dizziness, diarrhea, abdominal cramps
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Indication of any immediate medical attention and special treatment needed

Note to physician
Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media:
water spray, dry powder, foam

Unsuitable extinguishing media for safety reasons:
water jet

Special hazards arising from the substance or mixture
Hazards during fire-fighting:
harmful vapours
Evolution of fumes/fog. The substances/groups of substances mentioned can be released in case of fire.

Advice for fire-fighters
Protective equipment for fire-fighting:
Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

Further information:
The degree of risk is governed by the burning substance and the fire conditions. Contaminated extinguishing water must be disposed of in accordance with official regulations.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures
Use personal protective clothing.

Environmental precautions
Do not discharge into drains/surface waters/groundwater.

Methods and material for containment and cleaning up
Spills should be contained, solidified, and placed in suitable containers for disposal.

7. Handling and Storage

Precautions for safe handling
Avoid handling of the substance in case of known skin complaints, hypersensitivity reactions, chronic respiratory disease, asthmatic attacks or bronchial attacks. Avoid contact with the skin, eyes and clothing. Avoid inhalation of dusts/mists/vapours. Avoid frequent and direct contact with substance. Ensure good work practices are implemented. Regular inspection and maintenance of equipment and machines. Clean equipment and the work area every day. Engineering controls have to be used to reduce exposures. Minimise exposure by partial enclosure of the operation or equipment and provide extract ventilation at openings. Workers should receive a pre-placement examination and subsequent periodic medical examinations, including a pulmonary function test. Wear suitable face shield Wear an impervious suit. Use suitable eye protection. Wear chemically resistant gloves in combination with ‘basic’ employee training. Change gloves, if duration of activity exceeds break through time Use a local exhaust ventilation with adequate effectiveness. In case of insufficient ventilation, wear suitable respiratory equipment.

Protection against fire and explosion:
Take precautionary measures against static discharges.

Conditions for safe storage, including any incompatibilities

Further information on storage conditions: Keep container tightly closed and dry; store in a cool place.

Storage stability:
If moisture enters isocyanate containers, CO2 forms and pressure builds up.
Protect from temperatures above: 50 °C

8. Exposure Controls/Personal Protection

Components with occupational exposure limits

1,6-hexamethylene diisocyanate	ACGIH, US:	TWA value 0.005 ppm ;

Advice on system design:
Provide local exhaust ventilation to maintain recommended P.E.L.

Personal protective equipment

Respiratory protection:
For short-term or slight exposure, use a respiratory mask with filter, for intensive or long-term exposure wear full respiratory protection apparatus Combination filter for gases/vapours of organic compounds and solid and liquid particles (f.e. EN 14387 Type A-P2)

Hand protection:
Chemical resistant protective gloves

Eye protection:
Tightly fitting safety goggles (chemical goggles) and face shield.

Body protection:
Impermeable protective clothing

General safety and hygiene measures:
Handle in accordance with good industrial hygiene and safety practice. Clean equipment, work area and clothing regularly.

9. Physical and Chemical Properties

Form:	liquid	
Odour:	product specific	
Odour threshold:	not determined	
Colour:	colourless to yellowish	
pH value:	not applicable	
Melting point:	approx. -46 °C	(DIN 51583)
Freezing point:	No applicable information available.	
Boiling point:	not determined	
Sublimation point:	No applicable information available.	
Flash point:	168 °C	(ISO 2719)
Flammability:	not flammable	(derived from flash point)

Lower explosion limit:	As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use.	
Upper explosion limit:	As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use.	
Autoignition:	414 °C	(DIN EN 14522)
Vapour pressure:	< 0.0001 hPa (20 °C)	
Density:	1.16 g/cm3 (20 °C) 1.14 g/cm3 (50 °C)	
Relative density:	1.16 (20 °C)	
Vapour density:	not determined	
Partitioning coefficient n-octanol/water (log Pow):	Study scientifically not justified.	
Self-ignition temperature:	not self-igniting	
Thermal decomposition:	No decomposition if used correctly.	
Viscosity, dynamic:	1.5 - 3.0 Pa.s (23 °C)	(DIN EN ISO 3219)
Viscosity, kinematic:	No applicable information available.	
Particle size:	The substance / product is marketed or used in a non solid or granular form.	
Solubility in water:	Reacts with water.	
Miscibility with water:	Reacts with water.	
Solubility (quantitative):	No applicable information available.	
Solubility (qualitative):	soluble solvent(s): polar solvents,	
Molar mass:	No applicable information available.	
Evaporation rate:	not determined	

10. Stability and Reactivity

Reactivity

Oxidizing properties:
not fire-propagating

Chemical stability
The product is stable if stored and handled as prescribed/indicated.

Possibility of hazardous reactions
Reacts with alcohols. Reacts with amines. Reacts with substances which contain active hydrogen. Reacts with water, with formation of carbon dioxide. The formation of gaseous decomposition products builds up pressure in tightly closed containers.

Conditions to avoid
Avoid moisture. Avoid humidity. Avoid direct contact with water.

Incompatible materials
water, alcohols, amines

Hazardous decomposition products

Decomposition products:
Hazardous decomposition products: No hazardous decomposition products if stored and handled as prescribed/indicated.

Thermal decomposition:
No decomposition if used correctly.

11. Toxicological information

Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

Acute Toxicity/Effects

Acute toxicity
Assessment of acute toxicity: Virtually nontoxic after a single ingestion. Of moderate toxicity after short-term inhalation. The product has not been tested. The statement has been derived from the properties of the individual components.

Oral
Type of value: LD50
Species: rat
Value: > 2,000 mg/kg
The product has not been tested. The statement has been derived from the properties of the individual components.

Inhalation
Type of value: LC50
Species: rat
Value: > 1 - 5 mg/l
Exposure time: 4 h
The substance from the isocyanate substance class has been tested in a form (respirable aerosol) that is different from the forms in which the product is placed on the market and used. Therefore, the test result is not adequate for the purpose of classification and labelling of the product. Based on expert judgement and available data, a modified classification and labeling for acute inhalation toxicity is justified. The generation of a respirable aerosol must be prevented! The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: (OLIGOMER) Hexamethylene diisocyanate isocyanurate-type oligomers
Type of value: LC50
Species: rat (male/female)
Value: 0.467 mg/l (OECD Guideline 403)
Exposure time: 4 h

An aerosol was tested.
The test result applies only to the substance transferred into respirable aerosol (particles < 20 µm).

Dermal
Type of value: LD50
Species: rat
not determined

Irritation / corrosion
Assessment of irritating effects: Not irritating to eyes and skin. The product has not been tested. The statement has been derived from the properties of the individual components.

Skin
Species: rabbit
Result: non-irritant
Method: OECD Guideline 404
The product has not been tested. The statement has been derived from the properties of the individual components.

Eye
Species: rabbit
Result: non-irritant
Method: OECD Guideline 405
The product has not been tested. The statement has been derived from the properties of the individual components.

Sensitization
Assessment of sensitization: May cause allergic skin reaction. The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: (OLIGOMER) Hexamethylene diisocyanate isocyanurate-type oligomers
Assessment of sensitization:
Caused skin sensitization in animal studies.

Guinea pig maximization test
Species: guinea pig
Result: sensitizing
Caused skin sensitization in animal studies. The product has not been tested. The statement has been derived from the properties of the individual components.

Chronic Toxicity/Effects

Repeated dose toxicity
Assessment of repeated dose toxicity: No applicable information available.

Genetic toxicity
Assessment of mutagenicity: Based on the ingredients, there is no suspicion of a mutagenic effect.

Reproductive toxicity
Assessment of reproduction toxicity: No applicable information available.

Medical conditions aggravated by overexposure
The isocyanate component is a respiratory sensitizer. It may cause allergic reaction leading to asthma-like spasms of the bronchial tubes and difficulty in breathing. Persons with asthmatic

conditions, chronic bronchitis, other chronic respiratory diseases, recurrent eczema or pulmonary sensitization should be excluded from working with isocyanates. Once a person is diagnosed as having pulmonary sensitization (allergic asthma) to isocyanates, further exposure is not recommended.

12. Ecological Information

Toxicity

Aquatic toxicity
Assessment of aquatic toxicity:
The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.

Toxicity to fish
LC50 (96 h), Fish
not determined

Aquatic invertebrates
EC50 (48 h) 10 - 100 mg/l, Daphnia magna
The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Aquatic plants
EC50 (72 h), algae
not determined

Chronic toxicity to fish
No data available.

Chronic toxicity to aquatic invertebrates
No data available.

Assessment of terrestrial toxicity
Study scientifically not justified.

Microorganisms/Effect on activated sludge

Toxicity to microorganisms
bacteria/EC50 (3 h): > 1,000 mg/l
The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.

Persistence and degradability

Assessment biodegradation and elimination (H2O)
The substance can be virtually eliminated from water in suitable effluent treatment plants by biodegradation, stripping and mechanical separation.

Elimination information

Not readily biodegradable (by OECD criteria).

Mobility in soil

Assessment transport between environmental compartments
The substance will not evaporate into the atmosphere from the water surface.
No data available.

Additional information

Add. remarks environm. fate & pathway:
Treatment in biological waste water treatment plants has to be performed according to local and administrative regulations.

Other ecotoxicological advice:
Do not release untreated into natural waters. The local regulations on waste-water treatment must be followed.

13. Disposal considerations

Waste disposal of substance:
Dispose of in a licensed facility. Do not discharge into waterways or sewer systems without proper authorization.

Container disposal:
Dispose of in a licensed facility. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

14. Transport Information

Land transport
USDOT
Not classified as a dangerous good under transport regulations

Sea transport
IMDG
Not classified as a dangerous good under transport regulations

Air transport
IATA/ICAO
Not classified as a dangerous good under transport regulations

15. Regulatory Information

Federal Regulations

Registration status:
Chemical TSCA, US released / listed

EPCRA 311/312 (Hazard categories): Refer to SDS section 2 for GHS hazard classes applicable for this product.

CERCLA RQ	CAS Number	Chemical name
100 LBS	822-06-0	1,6-hexamethylene diisocyanate

State regulations

State RTK	CAS Number	Chemical name
NJ	103-23-1	Di-2-ethylhexyladipate

NFPA Hazard codes:
Health: 2 Fire: 1 Reactivity: 1 Special:

16. Other Information

SDS Prepared by:
BASF NA Product Regulations
SDS Prepared on: 2024/03/05

We support worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to Responsible Care is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.