We create chemistry

Safety data sheet

1. Substance/preparation and manufacturer/supplier identification

Basonat® LR 9056

Use: Raw material, for industrial use only

Manufacturer/supplier:
BASF New Zealand Ltd.
5E City Works Depot
77 Cook Street
Auckland Central, Auckland 1010
NEW ZEALAND
Telephone: +64 9 255-4300
Telefax number: +64 9 255-4307

Emergency information:
National Poisons Centre: 0800 764 766
BASF Emergency Advice Number: 0800 944 955 (24 hour advice in an emergency only)
BASF Emergency Advice Number: +61 3 8855 6666 (If calling from outside New Zealand)

2. Hazard identification

Classification of the substance and mixture:
Acute toxicity: Cat. 4 (Inhalation - mist)
Acute toxicity: Cat. 5 (oral)
Skin sensitization: Cat. 1
Specific target organ toxicity — single exposure: Cat. 3 (irritating to respiratory system)
Hazardous to the aquatic environment - acute: Cat. 3
Hazardous to the aquatic environment - chronic: Cat. 3

Label elements and precautionary statement:

Pictogram:

Signal Word:
Warning

Hazard Statement:

H332	Harmful if inhaled.
H303	May be harmful if swallowed.
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 and container to hazardous or special waste collection point.

Other hazards which do not result in classification:
No specific dangers known, if the regulations/notes for storage and handling are considered.

3. Composition/information on ingredients

Chemical nature

polyfunctional polyisocyanate, aliphatic

Hazardous ingredients

(OLIGOMER) Hexamethylene diisocyanate isocyanurate-type oligomers
Content (W/W): >= 60 % - <= 80 % Acute Tox.: Cat. 4 (Inhalation - mist)
CAS Number: 28182-81-2 Skin Sens.: Cat. 1
STOT SE: Cat. 3 (irr. to respiratory syst.)

Poly(oxy-1,2-ethanediyl), .alpha.-methyl-.omega.-hydroxy-, polymer with 1,6-diisocyanatohexane, block
Content (W/W): >= 20 % - <= 35 % Acute Tox.: Cat. 4 (Inhalation - mist)
CAS Number: 143472-08-6 Skin Sens.: Cat. 1
STOT SE: Cat. 3 (irr. to respiratory syst.)
Aquatic Acute: Cat. 3
Aquatic Chronic: Cat. 3

1,6-hexamethylene diisocyanate
Content (W/W): < 0.1 % Acute Tox.: Cat. 4 (oral)
CAS Number: 822-06-0 Acute Tox.: Cat. 1 (Inhalation - mist)
Skin Corr./Irrit.: Cat. 2
Eye Dam./Irrit.: Cat. 2A
Resp. Sens.: Cat. 1
Skin Sens.: Cat. 1
STOT SE: Cat. 3 (irr. to respiratory syst.)

4. 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.

On skin contact:
Wash thoroughly with soap and water

On contact with eyes:
Wash affected eyes for at least 15 minutes under running water with eyelids held open.

On ingestion:
Rinse mouth and then drink 200-300 ml of water. Do not induce vomiting unless told to by a poison control center or doctor.

Note to physician:
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., (Further) symptoms and / or effects are not known so far
Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-Fighting Measures

Suitable extinguishing media:
water spray, dry powder, foam

Unsuitable extinguishing media for safety reasons:
water jet

Specific hazards:
harmful vapours
Evolution of fumes/fog. The substances/groups of substances mentioned can be released in case of fire.

Special protective equipment:
Wear a self-contained breathing apparatus.

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:
Use personal protective clothing. Breathing protection required.

Environmental precautions:
Contain contaminated water/firefighting water. Do not discharge into drains/surface waters/groundwater.

Methods for cleaning up or taking up:
For large amounts: Pump off product.
For residues: Pick up with suitable absorbent material. Dispose of absorbed material in accordance with regulations.

7. Handling and Storage

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.

Storage

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

Storage stability:
If moisture enters isocyanate containers, CO2 forms and pressure builds up.

Protect from temperatures above: 50 °C

8. Exposure controls and personal protection

Components with occupational exposure limits

1,6-hexamethylene diisocyanate, 822-06-0;
TWA value 0.005 ppm (ACGIHTLV)
TWA value 0.02 mg/m3 (OEL (NZ))
Measured as: NCO
Note: These values apply to all isocyanates, including prepolymers, present in the workplace air as vapours, mist or dust.
STEL value 0.07 mg/m3 (OEL (NZ))
Measured as: NCO
Note: These values apply to all isocyanates, including prepolymers, present in the workplace air as vapours, mist or dust.

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
Suitable materials for short-term contact (recommended: At least protective index 2, corresponding > 30 minutes of permeation time according to EN ISO 374-1)
nitrile rubber (NBR) - 0.4 mm coating thickness
fluoroelastomer (FKM) - 0.7 mm coating thickness
Supplementary note: The specifications are based on tests, literature data and information of glove manufacturers or are derived from similar substances by analogy. Due to many conditions (e.g. temperature) it must be considered, that the practical usage of a chemical-protective glove in practice may be much shorter than the permeation time determined through testing.
Manufacturer's directions for use should be observed because of great diversity of types.

Eye protection:
Safety glasses with side-shields (frame goggles) (f.e. EN 166) and face shield

Body protection:
Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

General safety and hygiene measures:
Handle in accordance with good industrial hygiene and safety practice. Wearing of closed work clothing is required additionally to the stated personal protection equipment. Do not breathe vapour/aerosol/spray mists. Ensure adequate ventilation. Clean equipment, work area and clothing regularly.

9. Physical and Chemical Properties

Form:	liquid	
Colour:	colourless to yellowish	
Odour:	product specific	
Odour threshold:	not determined	
pH value:	not applicable	
Melting point:	approx. -46 °C	(DIN 51583)
Boiling point:	not determined	
Flash point:	168 °C	(ISO 2719)
Evaporation rate:	not determined	
Flammability (solid/gas):	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.	
Ignition temperature:	414 °C	(DIN EN 14522)
Thermal decomposition:	No decomposition if used correctly.	
Self ignition:	not self-igniting	

Self heating ability:	It is not a substance capable of spontaneous heating.	
Explosion hazard:	not explosive	
Fire promoting properties:	not fire-propagating	
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)	
Relative vapour density (air):	not determined	
Solubility in water:	Reacts with water.	
Miscibility with water:	Reacts with water.	
Hygroscopy:	hygroscopic	
Solubility (qualitative) solvent(s):	polar solvents soluble	
Partitioning coefficient n-octanol/water (log Pow):	Study scientifically not justified.	
Surface tension:	Based on chemical structure, surface activity is not to be expected.	
Viscosity, dynamic:	1.5 - 3.0 Pa.s (23 °C, 50 1/s)	(DIN EN ISO 3219)

10. Stability and Reactivity

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

Thermal decomposition: No decomposition if used correctly.

Substances to avoid:
water, alcohols, amines

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.

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

11. Toxicological Information

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.

Experimental/calculated data:
LD50 rat (oral): > 2,000 mg/kg
The product has not been tested. The statement has been derived from the properties of the individual components.

LC50 rat (by inhalation): > 1 - 5 mg/l 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.

LD50 rat (dermal):
not determined

Information on: (OLIGOMER) Hexamethylene diisocyanate isocyanurate-type oligomers
Experimental/calculated data:
LC50 rat (by inhalation): 0.467 mg/l 4 h (OECD Guideline 403)
The test result applies only to the substance transferred into respirable aerosol (particles < 20 µm).
An aerosol was tested.

Irritation

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.

Experimental/calculated data:
Skin corrosion/irritation rabbit: non-irritant (OECD Guideline 404)
The product has not been tested. The statement has been derived from the properties of the individual components.

Serious eye damage/irritation rabbit: non-irritant (OECD Guideline 405)
The product has not been tested. The statement has been derived from the properties of the individual components.

Respiratory/Skin sensitization

Experimental/calculated data:
Guinea pig maximization test guinea pig: skin 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.

Germ cell mutagenicity

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

Carcinogenicity

Assessment of carcinogenicity:
No data available.

Reproductive toxicity

Assessment of reproduction toxicity:
No data available.

Developmental toxicity

Assessment of teratogenicity:
No data available.

Specific target organ toxicity (single exposure):

Assessment of STOT single:
Causes temporary irritation of the respiratory tract.

Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Assessment of repeated dose toxicity:
No data available.

Aspiration hazard

No aspiration hazard expected.

12. Ecological Information

Ecotoxicity

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

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

Chronic toxicity to fish:
No data available.

Chronic toxicity to aquatic invertebrates:
No data available.

Assessment of terrestrial toxicity:
Study scientifically not justified.

Mobility

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

Persistence and degradability

Elimination information:
Not readily biodegradable (by OECD criteria).

Bioaccumulation potential

Assessment bioaccumulation potential:
The product has not been tested.

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

Incinerate in suitable incineration plant, observing local authority regulations.

Contaminated packaging:
Uncontaminated packaging can be re-used.
Packs that cannot be cleaned should be disposed of in the same manner as the contents.
Refer to manufacturer/supplier for information on recovery/recycling.

14. Transport Information

Domestic transport:

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

Other regulations

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.

A certified handler is not required for the handling of this substance.
Tracking requirements do not apply to this substance.

HSNO Approval Number HSR002503
Additives, Process Chemicals and Raw Materials (Subsidiary Hazard) Group Standard 2017

16. Other Information

Vertical lines in the left hand margin indicate an amendment from the previous version.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.