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Safety Data Sheet
DH46 NORMAL HRDNR NLR

1. Identification

Product identifier used on the label

DH46 NORMAL HRDNR NLR

Recommended use of the chemical and restriction on use
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 Canada Inc.
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Mississauga, ON L5R 4H1, CANADA

Telephone: +1 289 360-1300

Emergency telephone number

CANUTEC (reverse charges): (613) 996-6666
BASF HOTLINE: (800) 454-COPE (2673)

Other means of identification
Chemical family: Coating

2. Hazards Identification

According to Hazardous Products Regulations (HPR) (SOR/2015-17)

Classification of the product

Resp. Sens.	1	Respiratory sensitization
Skin Sens.	1	Skin sensitization
Acute Tox.	4 (oral)	Acute toxicity
STOT SE	3 (irritating to respiratory system)	Specific target organ toxicity — single exposure
Acute Tox.	4 (Inhalation - vapour)	Acute toxicity
Flam. Liq.	3	Flammable liquids

Label elements

Pictogram:

Signal Word:
Danger

Hazard Statement:

H332	Harmful if inhaled.
H302	Harmful if swallowed.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317	May cause an allergic skin reaction.
H226	Flammable liquid and vapour.
H335	May cause respiratory irritation.

Precautionary Statements (Prevention):

P280	Wear protective gloves/protective clothing/eye protection/face protection.
P271	Use only outdoors or in a well-ventilated area.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P264	Wash with plenty of water and soap thoroughly after handling.
P242	Use only non-sparking tools.
P241	Use explosion-proof electrical/ventilating/lighting/equipment.
P243	Take action to prevent static discharges.
P233	Keep container tightly closed.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P285	In case of inadequate ventilation wear respiratory protection.
P240	Ground and bond container and receiving equipment.
P270	Do not eat, drink or smoke when using this product.
P272	Contaminated work clothing should not be allowed out of the workplace.

Precautionary Statements (Response):

P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P370 + P378	In case of fire: Use water spray for extinction.
P363	Wash contaminated clothing before reuse.
P321	Specific treatment (see on this label).
P330	Rinse mouth.
P301 + P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P304 + P341	IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing.
P342 + P311	If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

Precautionary Statements (Storage):

P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P403 + P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.

Precautionary Statements (Disposal):

P501	Dispose of contents/container to hazardous or special waste collection point.

Hazards not otherwise classified

No applicable information available.

3. Composition / Information on Ingredients

According to Hazardous Products Regulations (HPR) (SOR/2015-17)

CAS Number	Weight %	Chemical name
110-43-0	>= 25.0 - < 50.0%	2-heptanone
822-06-0	>= 0.1 - < 0.2%	1,6-hexamethylene diisocyanate
28182-81-2	>= 50.0 - < 75.0%	(OLIGOMER) Hexamethylene diisocyanate isocyanurate-type oligomers

4. First-Aid Measures

Description of first aid measures

General advice:
Remove contaminated clothing.

If inhaled:
Keep patient calm, remove to fresh air. If breathing difficulties develop, aid in breathing and seek immediate medical attention.

If in eyes:
Flush with copious amounts of water for at least 15 minutes. Hold eyelids open to facilitate rinsing. If irritation develops, seek medical attention. Seek medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms: The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.

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:
carbon dioxide, foam, dry powder

Unsuitable extinguishing media for safety reasons:
water jet

Special hazards arising from the substance or mixture
Advice for fire-fighters
Protective equipment for fire-fighting:
Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

Further information:
Avoid water contamination in closed containers of confined areas, because carbon dioxide gas is generated. Remove product from areas of fire, or otherwise cool sealed containers with water in order to avoid pressure build up due to heat.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures
Avoid contact with skin and eyes. Wear suitable personal protective clothing and equipment. Ensure adequate ventilation.

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

Methods and material for containment and cleaning up
Dike spillage. Wash down spill area with decontamination solution. Spill area can be decontaminated with the following recommended decontamination solution: Allow solution to stand for at least 10 minutes. Remove containers to a safe place, cover loosely, and allow to stand for 24 to 48 hours before sealing and disposing. Shovel into open container. Add additional decontamination solution to waste container. Mixture of 80 % water and 20 % non-ionic surfactant, or 90 - 95 % water, 3 - 8 % concentrated ammonia and 2 % detergent.

7. Handling and Storage

Precautions for safe handling
Handle and open container with care. Avoid water contamination in closed containers of confined areas, because carbon dioxide gas is generated. If bulging of drum occurs, transfer to well ventilated area, puncture to relieve pressure, open vent and let stand for 48 hours before resealing. Do not reseal container if contamination of the product is suspected. Use static lines when mixing and transferring material. Do not puncture, drop, or slide containers. Store in a well-ventilated place. Keep cool. Ensure adequate ventilation. Avoid contact with the skin, eyes and clothing.

Protection against fire and explosion:
Use antistatic tools. Exhaust fans should be explosion proof. Avoid all sources of ignition: heat, sparks, open flame. Sealed containers should be protected against heat as this results in pressure build-up.

Conditions for safe storage, including any incompatibilities
Segregate from oxidizing agents. Segregate from incompatible substances. Keep away from water.

Suitable materials for containers: Carbon steel (Iron), tinned carbon steel (Tinplate)

Further information on storage conditions: Protect against moisture. Carbon dioxide gas can cause containers to expand and possibly rupture explosively. Protect from direct sunlight. If moisture enters isocyanate containers, CO2 forms and pressure builds up.

Storage stability:
Slow non-hazardous polymerization possible when at or exceeding maximum temperatures.

8. Exposure Controls/Personal Protection

Components with occupational exposure limits

2-heptanone	OSHA PEL	PEL 100 ppm 465 mg/m3 ; TWA value 100 ppm 465 mg/m3 ;
	ACGIH TLV	TWA value 50 ppm ;
1,6-hexamethylene diisocyanate	ACGIH TLV	TWA value 0.005 ppm ;

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

Personal protective equipment

Respiratory protection:
Do not exceed the maximum use concentration for the respirator facepiece/cartridge combination.

Hand protection:
Chemical resistant protective gloves

Eye protection:
Wear face shield if splashing hazard exists. Tightly fitting safety goggles (chemical goggles).

Body protection:
Body protection must be chosen based on level of activity and exposure.

General safety and hygiene measures:
Work place should be equipped with a shower and an eye wash. Remove contaminated clothing. Remove contaminated clothing immediately and clean before re-use or dispose it if necessary. Contact lenses should not be worn. Hands and/or face should be washed before breaks and at the end of the shift.

9. Physical and Chemical Properties

Form:	liquid
Odour:	solvent-like
Odour threshold:	No applicable information available.
Colour:	water white
Melting point:	No applicable information available.
Boiling range:	152.00 - 250.00 °C
Sublimation point:	No applicable information available.
Flash point:	44 °C
Flammability:	No applicable information available.
Lower explosion limit:	No applicable information available.
Upper explosion limit:	No applicable information available.
Autoignition:	No applicable information available.
Vapour pressure:	No applicable information available.

Density:	1.0383 g/cm3 (20 °C)	(calculated)
Relative density:	1.0383 (20 °C)	
Vapour density:	No applicable information available.	
Partitioning coefficient n-octanol/water (log Pow):	No applicable information available.	
Thermal decomposition:	No applicable information available.	
Viscosity, dynamic:	No applicable information available.	
Viscosity, kinematic:	No applicable information available.	
Solubility in water:	No applicable information available.	
Solubility (quantitative):	No applicable information available.	
Solubility (qualitative):	No applicable information available.	
Molar mass:	No applicable information available.	
Evaporation rate:	No applicable information available.	

10. Stability and Reactivity

Reactivity
No applicable information available.

Chemical stability

Possibility of hazardous reactions
On contact with water, gaseous decomposition products are formed, which cause build-up of pressure in tightly closed containers. Reacts with water.

Conditions to avoid
Avoid all sources of ignition: heat, sparks, open flame. Avoid direct contact with water. Avoid electro-static discharge.

Incompatible materials
strong oxidizing agents, thiols, transition metal salts, water, amines, alcohols

Hazardous decomposition products

Decomposition products:
nitrogen oxides

Thermal decomposition:
No applicable information available.

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 by inhalation. Virtually nontoxic after a single skin contact. Of moderate toxicity after single ingestion.

Information on: 2-heptanone
Assessment of acute toxicity:Of moderate toxicity after short-term inhalation. Of moderate toxicity after single ingestion. Virtually nontoxic after a single skin contact.

Information on: 1,6-hexamethylene diisocyanate
Assessment of acute toxicity:Of high toxicity after short-term inhalation. In animal studies the substance is virtually nontoxic after a single skin contact. Of moderate toxicity after single ingestion.

Information on: (OLIGOMER) Hexamethylene diisocyanate isocyanurate-type oligomers
Assessment of acute toxicity:Virtually nontoxic after a single ingestion. Virtually nontoxic after a single skin contact. Of moderate toxicity after short-term inhalation.

Oral
Type of value: LD50
Species: rat
Value: 1,670.000000 mg/kg

Inhalation
Type of value: LC50
Species: rat
Value: 19.000000 mg/l

Dermal
Type of value: LD50
Species: rabbit
Value: 10,000.000000 mg/kg

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

Irritation / corrosion

Information on: (OLIGOMER) Hexamethylene diisocyanate isocyanurate-type oligomers
Assessment of irritating effects: May cause slight irritation to the skin. May cause slight irritation to the eyes.

Sensitization

Information on: 1,6-hexamethylene diisocyanate
Assessment of sensitization:
The substance may cause sensitization of the respiratory tract. Sensitization after skin contact possible.

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

Aspiration Hazard
No applicable information available.

Chronic Toxicity/Effects

Repeated dose toxicity

Assessment of repeated dose toxicity: The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: 2-heptanone
Assessment of repeated dose toxicity: No adverse effects were observed after repeated exposure in animal studies.

Information on: (OLIGOMER) Hexamethylene diisocyanate isocyanurate-type oligomers
Assessment of repeated dose toxicity: After repeated exposure the prominent effect is local irritation.

Carcinogenicity
Assessment of carcinogenicity: No data available concerning carcinogenic effects.

Symptoms of Exposure

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.

Medical conditions aggravated by overexposure
Medical supervision of all employees who handle or come into contact with isocyanates is recommended. 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. 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.

12. Ecological Information

No applicable information available.

13. Disposal considerations

Waste disposal of substance:
Do not discharge into drains/surface waters/groundwater.
Must be disposed of or incinerated in accordance with local regulations.

14. Transport Information

Land transport
TDG

Hazard class:	3
Packing group:	III
ID number:	UN 1263
Hazard label:	3
Proper shipping name:	PAINT RELATED MATERIAL

Sea transport
IMDG

Hazard class:	3
Packing group:	III
ID number:	UN 1263
Hazard label:	3
Marine pollutant:	NO
Proper shipping name:	PAINT RELATED MATERIAL

Air transport
IATA/ICAO

Hazard class:	3
Packing group:	III
ID number:	UN 1263
Hazard label:	3
Proper shipping name:	PAINT RELATED MATERIAL

15. Regulatory Information

Federal Regulations

Registration status:
Chemical DSL, CA released / listed

NFPA Hazard codes:
Health: 2 Fire: 2 Reactivity: 0 Special:

16. Other Information

SDS Prepared by:
BASF NA Product Regulations
SDS Prepared on: 2018/11/02

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.

END OF DATA SHEET