

Safety data sheet

DH46 NORMAL HARDENER

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1. Substance/preparation and company identification

Company

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

24 Hour Emergency Response Information

CHEMTREC: 1-800-424-9300
BASF HOTLINE: 1-800-832-HELP (4357)

2. Hazards Identification

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

Classification of the product

Respiratory sensitization	1
Skin sensitization	1
Flammable liquids	3

Label elements

Pictogram:

Flame
Health hazard

Signal Word:

Danger

Hazard Statement:

H226	Flammable liquid and vapour.
H317	May cause an allergic skin reaction.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Precautionary Statements (Prevention):

P272	Contaminated work clothing should not be allowed out of the workplace.
P240	Ground/bond container and receiving equipment.
P285	In case of inadequate ventilation wear respiratory protection.
P233	Keep container tightly closed.
P243	Take precautionary measures against static discharge.
P241	Use explosion-proof

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P242 electrical/ventilating/lighting/equipment.
Use only non-sparking tools.
P210 Keep away from heat, hot surfaces, sparks,
open flames and other ignition sources. No
smoking.
P261 Avoid breathing
dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves/protective
clothing/eye protection/face protection.

Precautionary Statements (Response):

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

Precautionary Statements (Storage):

P403 + P235 Store in a well-ventilated place. Keep cool.

Precautionary Statements (Disposal):

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

Hazards not otherwise classified

No applicable information available.

According to Regulation 1994 OSHA Hazard Communication Standard;
29 CFR Part 1910.1200

Emergency overview

COMBUSTIBLE LIQUID

CONTAINS MATERIAL THAT MAY CAUSE ALLERGIC SKIN REACTION

SENSITIZER

INGESTION MAY CAUSE GASTRIC DISTURBANCES

3. Composition / Information on Ingredients

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

CAS Number	Weight %	Chemical name
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110-43-0	25.0 - 50.0 %	methyl amyl ketone
822-06-0	0.1 - 0.2 %	hexamethylene-1,6-diisocyanate
28182-81-2	50.0 - 75.0 %	aliphatic polyisocyanate

According to Regulation 1994 OSHA Hazard Communication Standard;
29 CFR Part 1910.1200

CAS Number	Weight %	Chemical name
28182-81-2	50.0 - 75.0 %	aliphatic polyisocyanate
110-43-0	25.0 - 50.0 %	methyl amyl ketone

4. First-Aid Measures

Description of first aid measures

General advice:

First aid personnel should pay attention to their own safety.
If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position).
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 on skin:

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.

If swallowed:

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

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Extinguishing media

Suitable extinguishing media:

Dry extinguishing media
Carbon dioxide
Foam

Unsuitable extinguishing media for safety reasons:
water jet

Special hazards arising from the substance or mixture

Hazards during fire-fighting:

Advice for fire-fighters

Protective equipment for fire-fighting:

Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

Further information:

Remove product from areas of fire or otherwise cool sealed containers with water in order to avoid pressure build-up due to heat.

Avoid water contamination in closed containers or confined areas because carbon dioxide gas is generated.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Wear suitable personal protective clothing and equipment.
Ensure adequate ventilation.
Avoid contact with skin and eyes.

Environmental precautions

Do not discharge into drains/surface waters/groundwater.
A spill of or in excess of the reportable quantity requires notification to state, local and national emergency authorities.

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:

Mixture of 80 % water and 20 % non-ionic surfactant, or 90 - 95 % water, 3 - 8 % concentrated ammonia and 2 % detergent.

Allow solution to stand for at least 10 minutes.

Shovel into open container.

Add additional decontamination solution to waste container.

Remove containers to a safe place, cover loosely, and allow to stand for 24 to 48 hours before sealing and disposing.

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7. Handling and Storage

Precautions for safe handling

Store in a well-ventilated place. Keep cool.

Ensure adequate ventilation.

Do not puncture, drop or slide containers.

Use static lines when mixing and transferring material.

Handle and open container with care.

Avoid contact with the skin, eyes and clothing.

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.

Avoid water contamination in closed containers or confined areas, because carbon dioxide gas is generated.

Protection against fire and explosion:

Use antistatic tools.

Sealed containers should be protected against heat as this results in pressure build-up.

Avoid all sources of ignition: heat, sparks, or open flame.

Conditions for safe storage, including any incompatibilities

Segregate from incompatible substances.

Segregate from oxidizing agents.

Keep away from water.

Further information on storage conditions:

Protect from direct sunlight.

Protect against moisture.

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

Storage stability:

Protect against moisture.

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

Carbon dioxide gas can cause containers to expand and possibly rupture explosively.

8. Exposure Controls and Personal Protection

Components with occupational exposure limits

methyl amyl ketone

ACGIH TWA 50 ppm

OSHA PEL 100 ppm 465 mg/m³

hexamethylene-1,6-diisocyanate

ACGIH TWA 0.005 ppm

Advice on system design:

Provide local exhaust ventilation to maintain recommended P.E.L.

Personal protective equipment

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Respiratory protection:

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

Observe OSHA regulations for respirator use (29 CFR 1910.134).

Hand protection:

Use appropriate chemically resistant gloves as determined by an evaluation of glove performance characteristics and the hazards and potential hazards identified, including but not limited to butyl, natural and synthetic rubber, nitrile, or neoprene.

Eye protection:

Tightly fitting safety goggles (chemical goggles).

Wear face shield if splashing hazard exists.

Body protection:

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

General safety and hygiene measures:

Work place should be equipped with a shower and eye wash.

Contact lenses should not be worn.

Remove contaminated clothing.

Contaminated equipment or clothing should be cleaned after each use or disposed of.

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
pH value:	No applicable information available.
Melting temperature:	No applicable information available.
Boiling range:	300 °F / 148.9 °C
Sublimation temperature:	No applicable information available.
Flash point:	111 °F (44.0 °C) +/- 3 °F Setaflash Closed Cup (measured)
Flammability:	No applicable information available.
Lower explosion limit:	not available
Upper explosion limit:	not available
Autoignition:	No applicable information available.
Vapour pressure:	not available
Density:	8.67 Lb/USg CALC
Relative density:	1.04
Vapour density:	heavier than air
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:	> 20.60 mm ² /s
Solubility in water:	No applicable information available.

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Solubility (quantitative):	No applicable information available.
Solubility (qualitative):	No applicable information available.
Evaporation rate:	No applicable information available.

10. Stability and Reactivity

Reactivity

Reactivity:
No applicable information available.

Chemical stability

Chemical stability:

Possibility of hazardous reactions

Hazardous reactions:

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

Conditions to avoid

Conditions to avoid:
Avoid all sources of ignition: heat, sparks or open flames.
Avoid direct contact with water.
Avoid electrostatic discharge.
Incompatible materials

Substances to avoid:

water
alcohols
amines
strong oxidizing agents
thiols
transition metal salts

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 include eye and skin contact, ingestion and inhalation. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquified gases.

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Acute Toxicity/Effects

Acute toxicity

Assessment of acute toxicity:
No applicable information available.

Oral

Acute oral toxicity:

Inhalation

Acute inhalation toxicity:

Dermal

Acute dermal toxicity:

Assessment other acute effects

Assessment of STOT single:
No applicable information available.

Irritation / corrosion

Assessment of irritating effects:
No applicable information available.

Sensitization

Assessment of sensitization:
Sensitization after skin contact possible.
The substance may cause sensitization of the respiratory tract.

Aspiration hazard

No applicable information available.

Chronic Toxicity/Effects

Repeated dose toxicity

Assessment of repeated dose toxicity:
No applicable information available.

Genetic toxicity

Assessment of mutagenicity:
No applicable information available.

Carcinogenicity

Assessment of carcinogenicity:
No applicable information available.

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Reproductive toxicity

Assessment of reproduction toxicity:
No applicable information available.

Development

Assessment of teratogenicity:
No applicable information available.

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

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.

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

12. Ecological Information

No applicable information available.

13. Disposal Considerations

Waste disposal of substance

Dispose of in accordance with national, state and local regulations.

Do not discharge into drains/surface waters/groundwater.

Container disposal

Dispose of in accordance with national, state and local regulations.

14. Transport Information

Reference Bill of Lading

Land transport

USDOT

Sea transport

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IMDG

Air transport
IATA/ICAO

15. Regulatory Information

Federal Regulations

Registration status

TSCA, US released / listed

EPCRA 313

State regulations

State RTK

CAS Number
110-43-0

Chemical name
methyl amyl ketone

CA Prop. 65

WARNING: This product contains a chemical(s) known to the State of California to cause cancer and birth defects or other reproductive harm.

HMIS III rating

Health: 2⁺

Flammability: 2

Physical hazard: 0

16. Other information

SDS prepared by: BASF NA Product Regulations

SDS prepared on 15.10.2015

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