We create chemistry

Safety data sheet
LH710 DTM NORMAL HARDENER

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)

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2. Hazards Identification

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

Classification of the product

Skin corrosion/irritation	2
Respiratory sensitization	1
Skin sensitization	1
Hazardous to the aquatic environment - acute	3
Hazardous to the aquatic environment - chronic	3
Flammable liquids	3

Label elements

Pictogram:
Flame
Health hazard

Signal Word:
Danger

Hazard Statement:

H226	Flammable liquid and vapour.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H412	Harmful to aquatic life with long lasting effects.

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 electrical/ventilating/lighting/equipment.
P242	Use only non-sparking tools.
P264	Wash with plenty of water and soap thoroughly after handling.
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.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary Statements (Response):

P342 + P311	If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
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).
P362 + P364	Take off contaminated clothing and wash before reuse.
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.

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

HARMFUL IF INHALED
CAN CAUSE CENTRAL NERVOUS SYSTEM DAMAGE
CAN CAUSE LIVER DAMAGE
CAN CAUSE KIDNEY DAMAGE
MAY CAUSE EYE, SKIN AND RESPIRATORY TRACT IRRITATION
CONTAINS MATERIAL THAT MAY CAUSE ALLERGIC SKIN REACTION
SUSPECT CANCER HAZARD
MAY CAUSE PULMONARY EDEMA
SENSITIZER
CONTAINS MATERIAL WHICH MAY CAUSE DAMAGE TO THE BLOOD-FORMING ORGANS
INGESTION MAY CAUSE GASTRIC DISTURBANCES

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3. Composition / Information on Ingredients

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

CAS Number	Weight %	Chemical name
103-09-3	3.0 - 5.0 %	2-ethylhexyl acetate
95-63-6	1.0 - 3.0 %	1,2,4-trimethylbenzene
64742-95-6	3.0 - 5.0 %	solvent naphtha (petroleum), light arom., <0.1% benzen
4098-71-9	0.1 - 0.2 %	isophorone diisocyanate
28182-81-2	25.0 - 50.0 %	aliphatic polyisocyanate
53880-05-0	15.0 - 20.0 %	aliphatic polyisocyanate
123-86-4	10.0 - 15.0 %	n-butylacetate
112-07-2	7.0 - 10.0 %	butylglycol acetate
763-69-9	1.0 - 3.0 %	ethyl 3-ethoxypropionate

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

CAS Number	Weight %	Chemical name
28182-81-2	25.0 - 50.0 %	aliphatic polyisocyanate
53880-05-0	15.0 - 20.0 %	aliphatic polyisocyanate
123-86-4	10.0 - 15.0 %	n-butylacetate
112-07-2	7.0 - 10.0 %	butylglycol acetate
Proprietary	3.0 - 5.0 %	aliphatic polyisocyanate
103-09-3	3.0 - 5.0 %	2-ethylhexyl acetate
763-69-9	1.0 - 3.0 %	ethyl 3-ethoxypropionate
95-63-6	1.0 - 3.0 %	1,2,4-trimethylbenzene
98-82-8	0.1 - 0.2 %	isopropylbenzene

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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:
Immediately wash thoroughly with soap and water. Seek 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.

If swallowed:
Rinse mouth and then drink plenty of water.
Do not induce vomiting due to aspiration hazard.
Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions.
Immediate medical attention is required.

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.

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5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media:
Dry extinguishing media
Carbon dioxide
Foam
Water spray

Unsuitable extinguishing media for safety reasons:
water jet

Special hazards arising from the substance or mixture

Hazards during fire-fighting:

Vapors and/or decomposition products are irritants and/or toxic.
If product is heated above decomposition temperatures, acrid smoke and fumes will be released.

Advice for fire-fighters

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

Further information:
Vapors are heavier than air and may accumulate in low areas and travel a considerable distance up to the source of ignition. Flash fire may occur.
Remove product from areas of fire or otherwise cool sealed containers with water in order to avoid pressure build-up due to heat.
Do not flood burning material with water due to potential spreading of fire.
Contain contaminated water/firefighting water.
Run-off water from fire may cause pollution.
Notify proper authorities.
Avoid water contamination in closed containers or confined areas because carbon dioxide gas is generated.

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6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures
Extinguish sources of ignition nearby and downwind.
Wear suitable personal protective clothing and equipment.
Ensure adequate ventilation.
Avoid prolonged inhalation.
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.
WARNING: Empty containers may still contain hazardous residue.
Do not apply to hot surfaces.
Proper ventilation and respiratory protection is required when sanding, flame cutting, welding or brazing coated surfaces.
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.
Exhaust fans should be explosion proof.
Provide adequate ventilation to remove solvent vapors from lower levels or work areas and to prevent solvent contact with ignition sources.
Sealed containers should be protected against heat as this results in pressure build-up.
Risk of explosion if heated under confinement.
Avoid all sources of ignition: heat, sparks, or open flame.

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

Further information on storage conditions:
Keep container tightly closed.
Protect from direct sunlight.
Protect from temperatures above 49C/ 120F.
Store protected against freezing.
Consult local fire marshal for storage requirements.
Protect against moisture.
Slow non-hazardous polymerization possible when at or exceeding maximum temperatures.

Storage stability:
Storage temperature: 20-35 C
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.

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8. Exposure Controls and Personal Protection

Components with occupational exposure limits
1,2,4-trimethylbenzene
ACGIH TWA 25 ppm
isopropylbenzene
ACGIH TWA 50 ppm
OSHA PEL 50 ppm 245 mg/m3
butylglycol acetate
ACGIH TWA 20 ppm
n-butylacetate
ACGIH STEL 200 ppm; TWA 150 ppm
OSHA PEL 150 ppm 710 mg/m3
isophorone diisocyanate
ACGIH TWA 0.005 ppm

Advice on system design:
General mechanical ventilation should comply with OSHA 1910.94.

Personal protective equipment

Respiratory protection:
For situations where the airborne concentrations may exceed the level for which an air purifying respirator is effective, or where the levels are unknown or Immediately Dangerous to Life or Health (IDLH), use NIOSH-certified full facepiece pressure demand self-contained breathing apparatus (SCBA) or a full facepiece pressure demand supplied-air respirator (SAR) with escape provisions.
Respiratory protection equipment must be approved for use with isocyanates.
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:
Consider the type of application and environmental concentrations

to maintain the actual exposures below the established exposure limits.
Employee education and training in the safe use and handling of isocyanates is required under the OSHA Communication Standard.
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.

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9. Physical and Chemical Properties

Form:	liquid
Odour:	of the solvent contained in the product
Odour threshold:	No applicable information available.
Colour:	clear
pH value:	No applicable information available.
Melting temperature:	No applicable information available.
Boiling range:	259 - 390 °F
Sublimation temperature:	No applicable information available.
Flash point:	115 °F (46.1 °C) +/- 3 °F Setaflash Closed Cup (measured)
Flammability:	No applicable information available.
Lower explosion limit:	0.8 %(V)
Upper explosion limit:	13.1 %(V)
Autoignition:	No applicable information available.
Vapour pressure:	6.34 mmHg (20 °C)
Density:	8.64 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.
Solids content:	approx. 62 %
Viscosity, kinematic:	> 20.60 mm2/s
Solubility in water:	No applicable information available.
% volatiles:	approx. 46.0 %(V)
Solubility (quantitative):	No applicable information available.
Solubility (qualitative):	No applicable information available.
Evaporation rate:	No applicable information available.

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10. Stability and Reactivity

Reactivity

Reactivity:
No applicable information available.

Chemical stability

Chemical stability:
The product is chemically stable.

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:
strong bases
water
alcohols
amines
strong oxidizing agents
thiols
transition metal salts
strong acids

Hazardous decomposition products

Decomposition products:
carbon monoxide
carbon dioxide
nitrogen oxides
hydrogen cyanide

Thermal decomposition:
Risk of polymerization above the indicated temperature in the presence of moisture and isocyanate reactive substances.

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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.

Primary routes of entry:
Solvents are absorbed through the skin.

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:
Skin contact causes irritation.

Information on: 2-ethylhexyl acetate
Assessment of irritating effects:
Skin contact causes irritation.

Sensitization

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

Information on: aliphatic polyisocyanate
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:
No applicable information available.

Genetic toxicity

Assessment of mutagenicity:
No applicable information available.

Carcinogenicity

Assessment of carcinogenicity:
No applicable information available.

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.

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12. Ecological Information

No applicable information available.

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13. Disposal Considerations

Waste disposal of substance
Dispose of in accordance with national, state and local regulations.
The use and processing of this product, or addition of other constituents, may cause it to be considered a hazardous waste.
It is the waste generators responsibility to determine if a particular waste is hazardous under RCRA.
Do not discharge into drains/surface waters/groundwater.
Incinerate or dispose of in a RCRA licensed facility.
Do not incinerate closed containers.

Container disposal
WARNING: Empty containers may still contain hazardous residue.

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

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14. Transport Information

Land transport
USDOT

Hazard class:	3
Packing group:	III
ID-number:	UN 1866
Proper shipping name:	Resin Solution

Sea transport
IMDG

Hazard class:	3
Packing group:	III
ID-number:	UN 1866
Proper shipping name:	Resin Solution

Air transport
IATA/ICAO

Hazard class:	3
Packing group:	III
ID-number:	UN 1866
Proper shipping name:	Resin Solution

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15. Regulatory Information

Federal Regulations
Registration status

TSCA, US released / listed

EPCRA 313

CAS number	Weight %	Chemical name
112-07-2	8.5	butylglycol acetate
95-63-6	2.5	1,2,4-trimethylbenzene

State regulations

State RTK

CAS Number	Chemical name
123-86-4	n-butylacetate
112-07-2	butylglycol acetate
103-09-3	2-ethylhexyl acetate
95-63-6	1,2,4-trimethylbenzene

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

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16. Other information

SDS prepared by: BASF NA Product Regulations

SDS prepared on 14.10.2015

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.
