



We create chemistry

Safety Data Sheet

175-401 LVOC FastHardener

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(30651496/SDS_GEN_CA/EN)

1. Identification

Product identifier used on the label

175-401 LVOC FastHardener

Recommended use of the chemical and restriction on use

Recommended use*: Paints, Coatings and Related Materials; for industrial use only

Unsuitable for use: Not intended for sale to or use by the general public.

* 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.
5025 Creekbank Road
Building A, Floor 2
Mississauga, ON, L4W 0B6, CANADA

Telephone: +1 289 360-1300

Emergency telephone number

24 Hour Emergency Response Information

CHEMTREC: 1-800-424-9300

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

Skin Corr./Irrit.	2	Skin corrosion/irritation
Eye Dam./Irrit.	2A	Serious eye damage/eye irritation
Resp. Sens.	1	Respiratory sensitization
Skin Sens.	1	Skin sensitization
Carc.	2	Carcinogenicity

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Repr.	2 (unborn child)	Reproductive toxicity
STOT SE	3 (irritating to respiratory system, May cause drowsiness and dizziness.)	Specific target organ toxicity — single exposure
STOT RE	2	Specific target organ toxicity — repeated exposure
Aquatic Acute	3	Hazardous to the aquatic environment - acute
Aquatic Chronic	3	Hazardous to the aquatic environment - chronic
Flam. Liq.	2	Flammable liquids

Label elements

Pictogram:



Signal Word:

Danger

Hazard Statement:

H225	Highly flammable liquid and vapour.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H351	Suspected of causing cancer.
H361	Suspected of damaging the unborn child.
H412	Harmful to aquatic life with long lasting effects.
H373	May cause damage to organs (Central nervous system) through prolonged or repeated exposure.

Precautionary Statements (Prevention):

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P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280	Wear protective gloves, protective clothing and eye protection or face protection.
P201	Obtain special instructions before use.
P273	Avoid release to the environment.
P272	Contaminated work clothing should not be allowed out of the workplace.
P202	Do not handle until all safety precautions have been read and understood.
P240	Ground and bond container and receiving equipment.
P233	Keep container tightly closed.
P243	Take action to prevent static discharges.
P241	Use explosion-proof electrical, ventilating and lighting equipment.
P242	Use non-sparking tools.
P271	Use only outdoors or in a well-ventilated area.
P264	Wash contaminated body parts thoroughly after handling.
P260	Do not breathe mist or vapour or spray.

Precautionary Statements (Response):

P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER or physician if you feel unwell.
P314	Get medical advice/attention if you feel unwell.
P342 + P311	If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
P308 + P313	IF exposed or concerned: Get medical attention.
P337 + P313	If eye irritation persists: Get medical attention.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P333 + P313	If skin irritation or rash occurs: Get medical attention.
P362 + P364	Take off contaminated clothing and wash it 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 + P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P403 + P235	Store in a well-ventilated place. Keep cool.

Precautionary Statements (Disposal):

P501	Dispose of contents and container to hazardous or special waste collection point.
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Hazards not otherwise classified

No applicable information available.

3. Composition / Information on Ingredients

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

HDI-Oligomer(Trimer)
CAS Number: 28182-81-2

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Content (W/W): ≥ 25.0 - $< 50.0\%$

Synonym: No data available.

4-Chloro-.alpha.,.alpha.,.alpha.-trifluorotoluene

CAS Number: 98-56-6

Content (W/W): ≥ 25.0 - $< 50.0\%$

Synonym: No data available.

Toluene

CAS Number: 108-88-3

Content (W/W): ≥ 15.0 - $< 20.0\%$

Synonym: Benzene, methyl-

1,6-hexamethylene diisocyanate

CAS Number: 822-06-0

Content (W/W): ≥ 0.1 - $< 0.2\%$

Synonym: Hexamethylene diisocyanate

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 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:

Immediate medical attention required. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions. Do not induce vomiting. Rinse mouth and then drink 200-300 ml of water.

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: Toluene

Symptoms: Overexposure may cause: , unconsciousness, death, dilation of pupils, coordination disorder, lethargy, confusion, headache, dizziness, lacrimation

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Information on: 1,6-hexamethylene diisocyanate

Symptoms: Overexposure may cause: Eye irritation, skin irritation, erythema, nausea, headache, vomiting, dizziness, diarrhea, abdominal cramps

Information on: 4-Chloro-.alpha.,.alpha.,.alpha.-trifluorotoluene

Symptoms: Overexposure may cause: lethargy, nausea, headache, dizziness

Information on: HDI-Oligomer(Trimer)

Symptoms: Overexposure may cause: Eye irritation, skin irritation, erythema, nausea, headache, vomiting, dizziness, diarrhea, abdominal cramps

Hazards: No applicable information available.

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

Suitable extinguishing media:

carbon dioxide, foam, dry powder, 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 irritant and/or toxic. If product is heated above decomposition temperature 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:

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

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Avoid contact with skin and eyes. Use antistatic tools. Extinguish sources of ignition nearby and downwind. Avoid prolonged inhalation. Wear suitable personal protective clothing and equipment. Ensure adequate ventilation.

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

Risk of explosion if heated under confinement. Use antistatic tools. Exhaust fans should be explosion proof. Avoid all sources of ignition: heat, sparks, open flame. 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.

Conditions for safe storage, including any incompatibilities

Segregate from strong bases. Segregate from oxidizing agents. Segregate from incompatible substances. Segregate from metals. Segregate from strong acids. Keep away from water.

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

Storage stability:

Storage temperature: 25 - 35 °C

Consult local fire marshal for storage requirements.

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

Protect from temperatures above: 50 °C

8. Exposure Controls/Personal Protection

Components with occupational exposure limits

Toluene	ACGIH, US:	TWA value 20 ppm ;
	OSHA Z2:	max. conc. 500 ppm ;
	OSHA Z2:	CLV 300 ppm ;
	OSHA Z2:	TWA value 200 ppm ;

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1,6-hexamethylene
diisocyanate

ACGIH, US: TWA value 0.005 ppm ;

Personal protective equipment

Respiratory protection:

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

Hand protection:

Use appropriate chemically impervious 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:

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	
pH value:	No applicable information available.	
	substance/mixture reacts violently with water	
Melting point:	No applicable information available.	
Freezing point:	No applicable information available.	
Boiling range:	110.00 - 139.00 °C	
Sublimation point:	No applicable information available.	
Flash point:	21 °C	(ASTM D3278)
	The product burns self-sustainingly	
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.	
	No applicable information available.	
Density:	1.158 g/cm ³	
	(20 °C)	

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Relative density:	1.1580 (20 °C)
Vapour density:	Heavier than air.
Partitioning coefficient n-octanol/water (log Pow):	not applicable for mixtures
Thermal decomposition:	No applicable information available.
Viscosity, dynamic:	No applicable information available.
Viscosity, kinematic:	20.7 mm ² /s (23 °C) (40 °C) No data available.
Miscibility with water:	immiscible
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

The product is chemically stable.

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 electrostatic discharge.

Incompatible materials

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

Hazardous decomposition products

Decomposition products:

nitrogen oxides, carbon dioxide, carbon monoxide, hydrogen cyanide

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.

Primary routes of entry

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Solvents are absorbed through the skin.

Acute Toxicity/Effects

Acute toxicity

Assessment of acute toxicity: Based on available data, the classification criteria are not met.

Oral

Type of value: LD50

Species: rat

Value: > 5,000.000000 mg/kg

Type of value: ATE

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: 28.100000 mg/l

Type of value: ATE

Value: 32 mg/l

The product has not been tested. The statement has been derived from the properties of the individual components.

Dermal

Type of value: LD50

Species: rat

Value: > 5,000.000000 mg/kg

Type of value: ATE

Value: > 2,000 mg/kg

The product has not been tested. The statement has been derived from the properties of the individual components.

Assessment other acute effects

Assessment of STOT single:

Causes temporary irritation of the respiratory tract. Possible narcotic effects (drowsiness or dizziness).

Irritation / corrosion

Assessment of irritating effects: Eye contact causes irritation. Skin contact causes irritation.

Information on: Toluene

Assessment of irritating effects: Skin contact causes irritation. May cause slight irritation to the eyes.

Information on: 1,6-hexamethylene diisocyanate

Assessment of irritating effects: Irritating to eyes and skin.

Irritating to eyes, respiratory system and skin. Skin contact may result in dermatitis, either irritative or allergic. Overexposure to the eyes may cause irritation, redness, scratching of the cornea, and tearing. Repeated or prolonged skin contact can cause drying and cracking of the skin.

Information on: 4-Chloro-.alpha.,.alpha.,.alpha.-trifluorotoluene

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Assessment of irritating effects: May cause slight irritation to the skin. Not irritating to the eyes.

Information on: HDI-Oligomer(Trimer)

Assessment of irritating effects: May cause slight irritation to the skin. May cause slight irritation to the eyes.

Sensitization

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

Information on: 1,6-hexamethylene diisocyanate

Assessment of sensitization:

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

As a result of previous repeated overexposures or a single large dose, certain individuals will develop isocyanate sensitization (chemical asthma) which will cause them to react to a later exposure to isocyanate at levels well below the PEL/TLV. These symptoms, which include chest tightness, wheezing, cough, shortness of breath, or asthmatic attack, could be immediate or delayed up to several hours after exposure. Similar to many non-specific asthmatic responses, there are reports that once sensitized an individual can experience these symptoms upon exposure to dust, cold air, or other irritants. This increased lung sensitivity can persist for weeks and in severe cases for several years. Chronic overexposure to isocyanates has also been reported to cause lung damage, including a decrease in lung function, which may be permanent. Prolonged contact can cause reddening, swelling, rash, scaling, or blistering. In those who have developed a skin sensitization, these symptoms can develop as a result of contact with very small amounts of liquid material, or even as a result of vapour-only exposure. Animal tests indicate that skin contact may play a role in causing respiratory sensitization.

Information on: HDI-Oligomer(Trimer)

Assessment of sensitization:

Caused skin sensitization in animal studies.

Aspiration Hazard

No aspiration hazard expected.

Chronic Toxicity/Effects

Repeated dose toxicity

Assessment of repeated dose toxicity: Repeated exposure may affect certain organs.

Information on: Toluene

Assessment of repeated dose toxicity: Repeated exposure to large quantities may affect certain organs. Damages the central nerve system. The substance may cause deafness after repeated inhalation.

Information on: 1,6-hexamethylene diisocyanate

Assessment of repeated dose toxicity: After repeated exposure the prominent effect is local irritation. Based on the chemical structure a neurotoxic effect by repeated administration cannot be excluded.

Information on: 4-Chloro-.alpha.,.alpha.,.alpha.-trifluorotoluene

Assessment of repeated dose toxicity: Repeated exposure to the substance by oral administration leads to effects similar to those found after single exposure. Repeated exposure to the substance by inhalative administration leads to effects similar to those found after single exposure.

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May affect the liver and kidneys as indicated in animal studies. Overexposure may cause blood abnormalities.

Information on: HDI-Oligomer(Trimer)

Assessment of repeated dose toxicity: After repeated exposure the prominent effect is local irritation.

Genetic toxicity

Assessment of mutagenicity: Based on available data, the classification criteria are not met.

Carcinogenicity

Assessment of carcinogenicity: Indication of possible carcinogenic effect in animal tests.

Information on: 4-Chloro-.alpha.,.alpha.,.alpha.-trifluorotoluene

Assessment of carcinogenicity: Indication of possible carcinogenic effect in animal tests. On the basis of currently available information, a final assessment is not possible.

IARC (International Agency for Research on Cancer) has classified this substance as group 2B (The agent is possibly carcinogenic to humans). NTP listed as reasonably anticipated to be a human carcinogen.

Reproductive toxicity

Assessment of reproduction toxicity: Based on available data, the classification criteria are not met.

Information on: 4-Chloro-.alpha.,.alpha.,.alpha.-trifluorotoluene

Assessment of reproduction toxicity: The potential to impair fertility cannot be excluded when given at high doses. On the basis of currently available information, a final assessment is not possible. No reproductive toxic effects reported.

Teratogenicity

Assessment of teratogenicity: Indications of possible developmental toxicity/teratogenicity were seen in animal studies.

Information on: Toluene

Assessment of teratogenicity: Indications of possible developmental toxicity/teratogenicity were seen in animal studies.

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

Toxicity

Aquatic toxicity

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Assessment of aquatic toxicity:
Harmful to aquatic life. Harmful to aquatic life with long lasting effects. There are no test results available for this product. Do not allow to enter drains or waterways.

13. Disposal considerations

Waste disposal of substance:

Do not incinerate closed containers. The use and processing of this product, or addition of other constituents, may cause it to be considered a hazardous waste. Do not discharge into drains/surface waters/groundwater.

Must be disposed of or incinerated in accordance with local regulations.

Container disposal:

Do not reuse containers without commercial reconditioning. WARNING: Empty containers may still contain hazardous residue.

14. Transport Information

Land transport

TDG

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

Sea transport

IMDG

Hazard class:	3
Packing group:	II
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:	II
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

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NFPA Hazard codes:

Health: 2

Fire: 3

Reactivity: 0

Special:

16. Other Information

SDS Prepared by:

BASF NA Product Regulations

SDS Prepared on: 2024/02/13

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.

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