



BDC EPOXY SYSTEMS

Safety Data Sheet Liquid Illusion - Hardener

Revision date: 2016/12/09

1. Identification

Product identifier used on the label

Liquid Illusion - Hardener

Recommended use of the chemical and restriction on use

* 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:

B.D. Classic Enterprises

P.O. 2445

Santa Fe Springs, CA 90670

562-944-6177

Emergency telephone number

CHEMTREC: 1-800-424-9300

Other means of identification

Chemical family: amine

Synonyms: Polyetheramine

2. Hazards Identification

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

Classification of the product

Met. Corr.	1	Corrosive to metals
Acute Tox.	3 (oral)	Acute toxicity
Skin Corr./Irrit.	2	Skin corrosion/irritation
Eye Dam./Irrit.	1	Serious eye damage/eye irritation
Aquatic Acute	3	Hazardous to the aquatic environment - acute
Aquatic Chronic	3	Hazardous to the aquatic environment - chronic

Label elements

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Pictogram:



Signal Word: Danger

Hazard Statement:

H290	May be corrosive to metals.
H318	Causes serious eye damage.
H315	Causes skin irritation.
H301	Toxic if swallowed.
H402	Harmful to aquatic life.
H412	Harmful to aquatic life with long lasting effects.

Precautionary Statements (Prevention):

P280	Wear protective gloves and eye/face protection.
P273	Avoid release to the environment.
P264	Wash with plenty of water and soap thoroughly after handling.
P234	Keep only in original container.

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.
P310	Immediately call a POISON CENTER or doctor/physician.
P330	Rinse mouth.
P303 + P362	IF ON SKIN (or hair): Wash with plenty of soap and water.
P362 + P364	Take off contaminated clothing and wash before reuse.
P390	Absorb spillage to prevent material damage.

Precautionary Statements (Storage):

P405	Store locked up.
P406	Store in corrosive resistant/... container with a resistant innerliner.

Precautionary Statements (Disposal):

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

If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

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

Emergency overview

DANGER:

HARMFUL IF SWALLOWED.

Causes eye irritation.

RISK OF SERIOUS DAMAGE TO EYES.

INGESTION MAY CAUSE GASTRIC DISTURBANCES.

Use with local exhaust ventilation.

Wear a NIOSH-certified (or equivalent) organic vapor/particulate respirator. Wear

NIOSH-certified chemical goggles.

Wear chemical resistant protective gloves.

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Wear protective clothing.
Avoid contact with the skin, eyes and clothing.
Eye wash fountains and safety showers must be easily accessible.

3. Composition / Information on Ingredients

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

<u>CAS Number</u>	<u>Content (W/W)</u>	<u>Chemical name</u>
39423-51-3	>= 90.0 - <= 100.0	Polyetheramine
	< 10.0	Proprietary

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

<u>CAS Number</u>	<u>Content (W/W)</u>	<u>Chemical name</u>
39423-51-3	60.0 - 100.0 %	Polyetheramine
	3.0 - 7.0 %	Unknown component of BI 000000058540, Polyetheramine
	< 10%	Proprietary

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). Immediately remove contaminated clothing.

If inhaled:

Keep patient calm, remove to fresh air, seek medical attention. Immediately administer a corticosteroid from a controlled/metered dose inhaler.

If on skin:

Immediately wash thoroughly with plenty of water, apply sterile dressings, consult a skin specialist.

If in eyes:

Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eyespecialist.

If swallowed:

Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

Most important symptoms and effects, both acute and delayed

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:
water spray, dry powder, carbon dioxide, foam

Special hazards arising from the substance or mixture

Hazards during fire-fighting:
No particular hazards known.

Advice for fire-fighters

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

Further information:

Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

Impact Sensitivity:

Remarks: No data available.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Wear appropriate respiratory protection. Use personal protective clothing. Ensure adequate ventilation.

Environmental precautions

This product is not regulated by RCRA. This product is not regulated by CERCLA ('Superfund').

Methods and material for containment and cleaning up

Spills should be contained, solidified, and placed in suitable containers for disposal.

7. Handling and Storage

Precautions for safe handling

Containers should be opened carefully in well-ventilated areas to avoid static discharge.

Protection against fire and explosion:

Take precautionary measures against static discharges.

Conditions for safe storage, including any incompatibilities

Segregate from acids and acid forming substances.

Further information on storage conditions: Containers should be stored tightly sealed in a dry place. Keep container tightly closed and in a well-ventilated place. Keep away from sources of ignition - No smoking. Keep container tightly closed.

Storage stability:

Keep container dry because product takes up the humidity of air.

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8. Exposure Controls/Personal Protection

Components with workplace control parameters

Contains no substances with established exposure limit values.

Appropriate Engineering Controls

Good general ventilation (typically 10 changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Ensure adequate ventilation, especially in confined areas. Ventilation should be sufficient to effectively remove, and prevent buildup of any vapors, dusts, or fumes that may be generated during handling or thermal processing.

Personal protective equipment

Respiratory protection:

Do not breathe dust/fume/gas/mist/vapors/spray. If engineering controls do not maintain airborne concentrations to an acceptable level, an approved respirator must be worn. Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection:

Chemical resistant protective gloves

Eye protection:

Wear face shield or tightly fitting safety goggles (chemical goggles) if splashing hazard exists.

Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. head protection, apron, protective boots, chemical-protection suit.

General safety and hygiene measures:

Eye wash fountains and safety showers must be easily accessible. Wear protective clothing as necessary to prevent contact. Gloves must be inspected regularly and prior to each use. Replace if necessary (e.g. pinhole leaks). Hands and/or face should be washed before breaks and at the end of the shift. When using, do not eat, drink or smoke. Remove contaminated clothing.

9. Physical and Chemical Properties

Form:	liquid	
Odor:	amine-like	
Color:	Clear	
pH value:	11-12	(100 g/l)
Melting point:	< -25 °C	
Boiling point:	> 225 °C	
Flash point:	190 °C	(ASTM D93)
Flammability:	not flammable	(other)
Lower explosion limit:		For liquids not relevant for classification and labelling. The lower explosion point may be 5 - 15 °C below the flash point.
Upper explosion limit:		For liquids not relevant for classification and labelling.
Autoignition:	> 200 °C	
Vapor pressure:	1.5 mbar	(20 °C)
	10.2 mbar	(55 °C)
Density:	0.98 g/cm ³	(20 °C)

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Partitioning coefficient n-octanol/water (log Pow): -1.39 (25 °C) (calculated)
Self-ignition temperature: 20 °C No data available.
Thermal decomposition: 140 °C, 30 kJ/kg (DSC (DIN 51007))
308 °C, > 340 kJ/kg (DSC (DIN 51007))
Thermal decomposition above the indicated temperature is possible. self-accelerating reaction
Viscosity, dynamic: No data available.
Viscosity, kinematic: 99.9 mm²/s (20 °C)
Particle size:
Solubility in water: The substance / product is marketed or used in a non solid or granular form.
Evaporation rate: (20 °C) miscible
Value can be approximated from Henry's Law Constant or vapor pressure.

10. Stability and Reactivity

Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

Chemical stability

The product is stable if stored and handled as prescribed/indicated.

Possibility of hazardous reactions

The product is chemically stable.

Conditions to avoid

No conditions known that should be avoided.

Incompatible materials

acids

Hazardous decomposition products

Decomposition products:

No hazardous decomposition products known.

Thermal decomposition:

145 °C (DSC (DIN51007))

315 °C (DSC (DIN51007))

Thermal decomposition above the indicated temperature is possible. self-accelerating reaction

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

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Acute toxicity

Assessment of acute toxicity: Of high toxicity after single ingestion. Virtually nontoxic after a single skin contact. The inhalation of a highly enriched/saturated vapor-air-mixture represents an unlikely acute hazard.

Oral

Type of value: LD50

Species: rat

Value: > 50 - < 200 mg/kg (OECD Guideline 423)

Inhalation

Value: (IRT)

Exposure time: 8 h

No mortality within the stated exposition time as shown in animal studies. Literature data.

Dermal

Type of value: LD50

Species: rat

Value: > 2,000 mg/kg (OECD Guideline 402)

Assessment other acute effects

Assessment of STOT single:

Based on the available information there is no specific target organ toxicity to be expected after a single exposure.

Irritation / corrosion

Assessment of irritating effects: An in vitro test did not indicate the potential to cause skin corrosion. An in vitro test indicated the potential to cause serious damage to the eyes.

Skin

Result: Non corrosive.

Method: Epiderm Corrosivity Test

Eye

Result: Risk of serious damage to eyes.

Method: HET-CAM test in vitro

Sensitization

Assessment of sensitization: Skin sensitizing effects were not observed in animal studies.

Chronic Toxicity/Effects

Genetic toxicity

Assessment of mutagenicity: The substance was not mutagenic in bacteria.

Carcinogenicity

Assessment of carcinogenicity: No data available.

Reproductive toxicity

Assessment of reproduction toxicity: The results of animal studies gave no indication of a fertility impairing effect. The results were determined in a Screening test (OECD 421/422).

Teratogenicity

Assessment of teratogenicity: In animal studies the substance did not cause malformations. The results were determined in a Screening test (OECD 421/422).

Symptoms of Exposure

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Medical conditions aggravated by overexposure

Data available do not indicate that there are medical conditions that are generally recognized as being aggravated by exposure to this substance/product. See MSDS section 11 - Toxicological information.

12. Ecological Information

Toxicity

Aquatic toxicity

Assessment of aquatic toxicity:

Acutely harmful for aquatic organisms. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.

Aquatic invertebrates

EC50 (48 h) 13.0 mg/l, Daphnia magna (OECD Guideline 202, part 1, static)

Nominal values (confirmed by concentration control analytics)

Microorganisms/Effect on activated sludge

Toxicity to microorganisms

OECD Guideline 209 aerobic

activated sludge, domestic/EC20 (30 min): approx. 130 mg/l

The details of the toxic effect relate to the nominal concentration.

Persistence and degradability

Assessment biodegradation and elimination (H2O)

Not readily biodegradable (by OECD criteria). Poorly biodegradable. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Elimination information

< 10 % DOC reduction (28 d) (OECD 301 A (new version)) (aerobic, activated sludge, domestic)

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Bioaccumulative potential

Bioaccumulation potential

Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is not to be expected.

Additional information

Adsorbable organically-bound halogen (AOX):

This product contains no organically-bound halogen.

13. Disposal considerations

Waste disposal of substance:

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Dispose of in a licensed facility. Do not discharge into waterways or sewer systems without proper authorization.

Container disposal:

Dispose of in a licensed facility. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

14. Transport Information

Land transport

USDOT

Hazard class: 6.1
Packing group: III
ID number: UN 2810
Hazard label: 6.1
Proper shipping name: TOXIC LIQUID, ORGANIC, N.O.S. (contains POLYETHERAMINE)

Sea transport

IMDG

Hazard class: 6.1
Packing group: III
ID number: UN 2810
Hazard label: 6.1
Marine pollutant: NO
Proper shipping name: TOXIC LIQUID, ORGANIC, N.O.S. (contains POLYETHERAMINE)

Air transport

IATA/ICAO

Hazard class: 6.1
Packing group: III
ID number: UN 2810
Hazard label: 6.1
Proper shipping name: TOXIC LIQUID, ORGANIC, N.O.S. (contains POLYETHERAMINE)

15. Regulatory Information

Federal Regulations

Registration status:

Chemical TSCA, US released /listed

EPCRA 311/312 (Hazard categories): Acute;

NFPA Hazard codes:

Health : 3 Fire: 1 Reactivity: 0 Special:

HMIS III rating

Health: 3 Flammability: 1 Physical hazard:0

Assessment of the hazard classes according to UN GHS criteria (most recent version):

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Aquatic Acute	3	Hazardous to the aquatic environment - acute
Aquatic Chronic	3	Hazardous to the aquatic environment - chronic
Acute Tox.	3 (oral)	Acute toxicity
Acute Tox.	5 (dermal)	Acute toxicity
Skin Corr./Irrit.	2	Skin corrosion/irritation
Eye Dam./Irrit.	1	Serious eye damage/eye irritation

16. Other Information

SDS Prepared by:

B.D. Classic Enterprises

The information contained herein is believed to be accurate. It is provided independently of any sale of the product for purpose of hazard communication as part of B. D. Classic Enterprises, Inc. Product Safety Program. It is not intended to constitute performance information concerning the product. No express warranty, or implied warranty of merchantability or fitness for a particular purpose is made with respect to the product or the information obtained herein. Data sheets are available for all B. D. Classic products. You are urged to obtain data sheets for all B. D. Classic products you buy, process, use or distribute and you are encouraged and requested to advise those who may come in contact with such products of the information contained therein.

To determine applicability or effects of any law or regulation with respect to the product, user should consult his legal advisor or the appropriate government agency. B. D. Classic does not undertake to furnish advice on such matters.