



SAFETY DATA SHEET

Surrounding You with Exceptional Protection

Issue Date 17-Sep-2021

Revision Date 17-Sep-2021

Version 1

1. IDENTIFICATION

Product identifier

Product Name MC-4055 LTC Hardener

Other means of identification

Product Code MC4055LTC-B

UN/ID no UN1263

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended Use Industrial Coatings

Uses advised against No information available

Details of the supplier of the safety data sheet

Manufacturer Address

BLOME INTERNATIONAL

1450 Hoff Industrial Drive

O'Fallon, MO 63366

Emergency telephone number

Company Phone Number 636-379-9119

Emergency Telephone CHEMTREC: 800-424-9300

CHEMTREC: 703-527-3887

CANUTEC: 613-966-6666

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Respiratory sensitization	Category 1
Skin sensitization	Category 1
Specific target organ toxicity (single exposure)	Category 3
Flammable liquids	Category 3

Label elements

Emergency Overview

Danger

Hazard statements

Harmful if inhaled

May cause allergy or asthma symptoms or breathing difficulties if inhaled

May cause an allergic skin reaction

May cause respiratory irritation

Flammable liquid and vapor

**Appearance** viscous**Physical state** liquid**Odor** Aromatic**Precautionary Statements - Prevention**

Avoid breathing dust/fume/gas/mist/vapors/spray
 Use only outdoors or in a well-ventilated area
 Wear protective gloves/protective clothing/eye protection/face protection
 In case of inadequate ventilation wear respiratory protection
 Contaminated work clothing should not be allowed out of the workplace
 Keep away from heat/sparks/open flames/hot surfaces. - No smoking
 Keep container tightly closed
 Ground/bond container and receiving equipment
 Use explosion-proof electrical/ ventilating/ lighting/ equipment
 Use only non-sparking tools
 Take precautionary measures against static discharge
 Keep cool

Precautionary Statements - Response

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
 If skin irritation or rash occurs: Get medical advice/attention
 Wash contaminated clothing before reuse
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician
 In case of fire: Use CO₂, dry chemical, or foam for extinction

Precautionary Statements - Storage

Store in a well-ventilated place. Keep container tightly closed
 Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Not applicable

Other Information

Harmful to aquatic life with long lasting effects. Causes mild skin irritation. Mild eye irritation.

Unknown acute toxicity

0% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Chemical Name	CAS No	Weight-%
Hexamethylene diisocyanate homopolymer *	28182-81-2	60 - 100
n-Butyl acetate *	123-86-4	5 - 10
Solvent naphtha, petroleum, light aromatic *	64742-95-6	1 - 5
Hexamethylene diisocyanate *	822-06-0	0.1 - 1

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

Description of first aid measures

General advice	Call 911 or emergency medical service. Remove and isolate contaminated clothing and shoes.
Eye contact	In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes. If eye irritation persists: Get medical advice/attention.
Skin contact	Wash skin with soap and water. In the case of skin irritation or allergic reactions see a physician.
Inhalation	Move victim to fresh air. Administer oxygen if breathing is difficult. If breathing is irregular or stopped, administer artificial respiration. Call a physician immediately.
Ingestion	Call a physician or poison control center immediately. Do NOT induce vomiting. Drink plenty of water. Never give anything by mouth to an unconscious person.
Self-protection of the first aider	Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

Most important symptoms and effects, both acute and delayed

Symptoms	May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause allergic skin reaction. Coughing and/ or wheezing. Drowsiness. Dizziness.
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Indication of any immediate medical attention and special treatment needed

Note to physicians	Keep victim warm and quiet. Treat symptomatically.
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5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Dry chemical, CO₂, water spray or regular foam. Water spray, fog or regular foam. Use water spray or fog; do not use straight streams.

Unsuitable extinguishing media ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).

Specific hazards arising from the chemical

Vapors may travel to source of ignition and flash back. Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks). May cause sensitization in susceptible persons. Keep product and empty container away from heat and sources of ignition.

Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters

Move containers from fire area if you can do it without risk.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions	Do not touch or walk through spilled material. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). All equipment used when handling the product must be grounded. Stop leak if you can do it without risk.
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Other Information	Water spray may reduce vapor; but may not prevent ignition in closed spaces.
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Environmental precautions

Environmental precautions Prevent entry into waterways, sewers, basements or confined areas.

Methods and material for containment and cleaning up

Methods for containment A vapor suppressing foam may be used to reduce vapors. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.

Methods for cleaning up Use clean non-sparking tools to collect absorbed material. Dike far ahead of liquid spill for later disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Avoid contact with skin, eyes or clothing. Ensure adequate ventilation, especially in confined areas. Avoid breathing vapors or mists. Use with local exhaust ventilation. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a cool, well-ventilated place. Keep in properly labeled containers.

Incompatible materials Water. Alcohols. Strong bases. Strong oxidizing agents. Finely powdered metals.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
n-Butyl acetate 123-86-4	STEL: 150 ppm TWA: 50 ppm	TWA: 150 ppm TWA: 710 mg/m ³	IDLH: 1700 ppm TWA: 150 ppm TWA: 710 mg/m ³ STEL: 200 ppm STEL: 950 mg/m ³
Hexamethylene diisocyanate 822-06-0	TWA: 0.005 ppm	-	Ceiling: 0.020 ppm 10 min Ceiling: 0.140 mg/m ³ 10 min TWA: 0.005 ppm TWA: 0.035 mg/m ³

NIOSH IDLH Immediately Dangerous to Life or Health

Appropriate engineering controls

Engineering Controls Minimize exposure by partial enclosure of the operation or equipment and provide extract ventilation at openings.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin and body protection Wear protective gloves and protective clothing.

Respiratory protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

General Hygiene Considerations When using do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	liquid	Odor	Aromatic
Appearance	viscous	Odor threshold	No information available
Color	clear		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	No information available	
Melting point / freezing point	No information available	
Boiling point / boiling range	> 100 °C / 212 °F	
Flash point	47 °C / 117 °F	
Evaporation rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit:	7.6	
Lower flammability limit:	1.4	
Vapor pressure	No information available	
Vapor density	No information available	
Relative density	1.1	
Water solubility	insoluble Reacts with water	
Solubility in other solvents	No information available	
Partition coefficient	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Kinematic viscosity	No information available	
Dynamic viscosity	No information available	
Explosive properties	Not an explosive	
Oxidizing properties	Not applicable	

Other Information

Softening point	No information available
Molecular weight	No information available
VOC Content (%)	No information available
Density	No information available
Bulk density	No information available

10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Hazardous polymerization	Hazardous polymerization may occur.
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Conditions to avoid

Keep from any possible contact with water. Storage near to reactive materials. Heat, flames and sparks.

Incompatible materials

Water. Alcohols. Strong bases. Strong oxidizing agents. Finely powdered metals.

Hazardous Decomposition Products

Carbon monoxide. Carbon dioxide (CO₂). Nitrogen oxides (NO_x). Hydrogen cyanide. Thermal decomposition can lead to release of irritating and toxic gases and vapors.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation	May cause irritation of respiratory tract. May cause sensitization by inhalation. Harmful by inhalation.
Eye contact	Based on available data, the classification criteria are not met. May cause slight irritation.
Skin contact	May cause sensitization by skin contact. Substance may cause slight skin irritation.
Ingestion	Based on available data, the classification criteria are not met.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Hexamethylene diisocyanate homopolymer 28182-81-2	-	-	= 18500 mg/m ³ (Rat) 1 h
n-Butyl acetate 123-86-4	= 10768 mg/kg (Rat)	> 17600 mg/kg (Rabbit)	= 390 ppm (Rat) 4 h
Solvent naphtha, petroleum, light aromatic 64742-95-6	= 8400 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	= 3400 ppm (Rat) 4 h
Hexamethylene diisocyanate 822-06-0	= 738 mg/kg (Rat)	= 593 mg/kg (Rabbit)	= 0.06 mg/L (Rat) 4 h

Information on toxicological effects

Symptoms May cause an allergic skin reaction. Redness. Coughing and/ or wheezing.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization	May cause sensitization by inhalation. May cause sensitization by skin contact.
Germ cell mutagenicity	Based on available data, the classification criteria are not met.
Carcinogenicity	Based on available data, the classification criteria are not met.
Reproductive toxicity	Based on available data, the classification criteria are not met.
STOT - single exposure	May cause respiratory irritation.
STOT - repeated exposure	Based on available data, the classification criteria are not met.
Chronic toxicity	Repeated or prolonged exposure may cause central nervous system damage. Repeated or prolonged contact causes sensitization, asthma and eczemas. Avoid repeated exposure.
Target Organ Effects	Respiratory system, Eyes, Skin, Central nervous system.
Aspiration hazard	Based on available data, the classification criteria are not met.

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral)	91,897.00 mg/kg
ATEmix (dermal)	52,558.00 mg/kg
ATEmix (inhalation-dust/mist)	5.20 mg/l
ATEmix (inhalation-vapor)	4,875.00 mg/l

12. ECOLOGICAL INFORMATION**Ecotoxicity**

None known

Chemical Name	Algae/aquatic plants	Fish	Crustacea
n-Butyl acetate 123-86-4	674.7: 72 h Desmodesmus subspicatus mg/L EC50	100: 96 h Lepomis macrochirus mg/L LC50 static 62: 96 h Leuciscus idus mg/L LC50 static 17 - 19: 96 h Pimephales promelas mg/L LC50 flow-through	72.8: 24 h Daphnia magna mg/L EC50
Solvent naphtha, petroleum, light aromatic 64742-95-6	-	9.22: 96 h Oncorhynchus mykiss mg/L LC50	6.14: 48 h Daphnia magna mg/L EC50
Hexamethylene diisocyanate	-	26.1: 96 h Brachydanio rerio mg/L	-

822-06-0		LC50 static	
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Persistence and degradability

No information available.

Bioaccumulation

Chemical Name	Partition coefficient
n-Butyl acetate 123-86-4	1.81

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods**Disposal of wastes**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging

Do not reuse container.

US EPA Waste Number

D001

Chemical Name	California Hazardous Waste Status
n-Butyl acetate 123-86-4	Toxic

14. TRANSPORT INFORMATION

DOT

Not regulated (If shipped in NON BULK packaging by ground transport)

UN/ID no

UN1263

Proper shipping name

Paint

Hazard Class

3

Packing Group

III

Special Provisions

B1, B52, IB3, T2, TP1, TP29, 367

Description

UN1263, Paint, 3, III

Emergency Response Guide Number

128

TDG

Not regulated (If shipped in NON BULK packaging by ground transport)

UN/ID no

UN1263

Proper shipping name

Paint

Hazard Class

3

Packing Group

III

Description

UN1263, Paint, 3, III

IATA**UN/ID no**

UN1263

Proper shipping name

Paint

Hazard Class

3

Packing Group

III

ERG Code

3L

Special Provisions

A3, A72, A192

Description

UN1263, Paint, 3, III

IMDG**UN/ID no**

UN1263

Proper shipping name	Paint
Hazard Class	3
Packing Group	III
EmS-No	F-E, S-E
Special Provisions	163, 223, 367, 955
Description	UN1263, Paint, 3, III, (47°C c.c.)

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Complies
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	No
Fire hazard	Yes
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
n-Butyl acetate 123-86-4	5000 lb	-	-	X

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
n-Butyl acetate 123-86-4	5000 lb	-	RQ 5000 lb final RQ RQ 2270 kg final RQ
Hexamethylene diisocyanate 822-06-0	100 lb	-	RQ 100 lb final RQ RQ 45.4 kg final RQ

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
n-Butyl acetate 123-86-4	X	X	X
Hexamethylene diisocyanate 822-06-0	X	X	-

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

NFPA	Health hazards 2	Flammability 2	Instability 0	Physical and Chemical Properties -
HMIS	Health hazards 2	Flammability 2	Physical hazards 0	Personal protection X

Issue Date 17-Sep-2021

Revision Date 17-Sep-2021

Revision Note

No information available

Disclaimer

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet