

# **SAFETY DATA SHEET**

This safety data sheet was created pursuant to the requirements of: US OSHA Hazard Communication Standard (29 CFR 1910.1200)

Revision Date 04-Feb-2025 Version 1

# 1. Identification

**Product identifier** 

Product Name Flashing Cement

Other means of identification

Product Code LUCAS 771

**UN/ID no.** 1993

Synonyms SEALANT Grades 771S & 771W

Recommended use of the chemical and restrictions on use

Recommended Use Used to install, repair or rebuild roof flashings at parapet walls, gravel stops, stacks, vents,

monitors and similar applications. Can be used with fiberglass, polyester fabrics or roll

roofing for permanent repairs.

**Restrictions on use** For exterior use only. Do not use indoors.

Details of the supplier of the safety data sheet

<u>Supplier Address</u> <u>Manufacturer Address</u>

R.M. Lucas Company 3211 S. Wood St Chicago, Illnois 60608 (773) 523-4300

Emergency telephone number

Emergency Telephone Call CHEMTREC Day or Night:

Within USA and Canada: 1-800 424-9300

# 2. Hazard(s) identification

#### Classification

Flammable liquids	Category 3
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Carcinogenicity	Category 1A
Specific target organ toxicity (single exposure)	Category 3
Specific target organ toxicity (repeated exposure)	Category 2
Aspiration hazard	Category 1

# **Hazards not otherwise classified (HNOC)**

Not applicable.

### Label elements



#### Danger

### Hazard statements

Flammable liquid and vapor.

Causes skin irritation.

Causes serious eve irritation.

May cause cancer.

May cause respiratory irritation. May cause drowsiness or dizziness.

May cause damage to organs through prolonged or repeated exposure.

May be fatal if swallowed and enters airways.

### **Precautionary Statements - Prevention**

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Wear protective gloves/clothing and eye/face protection.

Wash face, hands and any exposed skin thoroughly after handling.

Do not breathe dust/fume/gas/mist/vapors/spray.

Use only outdoors or in a well-ventilated area.

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Keep container tightly closed.

Ground and bond container and receiving equipment.

Use explosion-proof electrical/ ventilating / lighting/ .? / equipment.

Use only non-sparking tools.

Take action to prevent static discharges.

Keep cool.

# **Precautionary Statements - Response**

IF exposed or concerned: Get medical advice/attention.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

If skin irritation occurs: Get medical advice/attention.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.

Wash contaminated clothing before reuse.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

IF SWALLOWED: Immediately call a POISON CENTER or doctor.

Do NOT induce vomiting.

In case of fire: Use CO2, dry chemical, or foam to extinguish.

# **Precautionary Statements - Storage**

Store locked up.

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

### **Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant.

#### Other Information

May be harmful in contact with skin.

# 3. Composition/information on ingredients

### **Substance**

Not applicable.

<u>Mixture</u>

Common name Flashing Cement.

**Synonyms** SEALANT. Grades 771S & 771W.

Chemical nature Organic solvents and additives.

Chemical name	CAS No.	Weight-%	Trade secret
Asphalt (at Ambient Temperature)	8052-42-4	40-60	*
Mineral Spirits (with < 0.1% Benzene)	8052-41-3	20-30	*
Hydrated Aluminum-Magnesium Silicate	12174-11-7	0-10	*
Calcium Carbonate	471-34-1	0-10	*
Cellulose Fiber	9004-34-6	0-10	*
Solvent Naphtha	64742-95-6	0-5	*
Kaolin	1332-58-7	0-10	*

<sup>\*</sup>The exact percentage (concentration) of composition has been withheld as a trade secret.

# 4. First-aid measures

### **Description of first aid measures**

General advice IF exposed or concerned: Get medical advice/attention. Show this safety data sheet to the

doctor in attendance. Immediate medical attention is required.

**Inhalation** Remove to fresh air. Aspiration into lungs can produce severe lung damage. If breathing

has stopped, give artificial respiration. Get medical attention immediately. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. If breathing is difficult,

(trained personnel should) give oxygen. Delayed pulmonary edema may occur.

**Eye contact** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep

eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

Skin contact Wash off immediately with soap and plenty of water while removing all contaminated clothes

and shoes. Get medical attention if irritation develops and persists.

**Ingestion** Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious

person. ASPIRATION HAZARD IF SWALLOWED - CAN ENTER LUNGS AND CAUSE DAMAGE. If vomiting occurs spontaneously, keep head below hips to prevent aspiration.

Get immediate medical attention.

Self-protection of the first aider Remove all sources of ignition. Ensure that medical personnel are aware of the material(s)

involved, take precautions to protect themselves and prevent spread of contamination. Use personal protective equipment as required. See section 8 for more information. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Avoid contact with skin,

eyes or clothing.

Most important symptoms and effects, both acute and delayed

Symptoms Difficulty in breathing. Coughing and/ or wheezing. Dizziness. May cause redness and

tearing of the eyes. Burning sensation. Inhalation of high vapor concentrations may cause

symptoms like headache, dizziness, tiredness, nausea and vomiting.

**Effects of Exposure** May cause cancer. May cause damage to organs through prolonged or repeated exposure.

Indication of any immediate medical attention and special treatment needed

Note to physicians Because of the danger of aspiration, emesis or gastric lavage should not be employed

unless the risk is justified by the presence of additional toxic substances.

5. Fire-fighting measures

Suitable Extinguishing Media Dry chemical. Carbon dioxide (CO2). Water spray. Alcohol resistant foam.

**Unsuitable extinguishing media**Do not scatter spilled material with high pressure water streams.

Specific hazards arising from the

chemical

Risk of ignition. Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Hazardous combustion products Thermal decomposition (burning) may release irritating, corrosive and/or toxic gases, vapors

and fumes.

**Explosion data** 

Sensitivity to mechanical impact None.

Sensitivity to static discharge Yes.

Special protective equipment and precautions for fire-fighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

Use personal protection equipment.

# 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

**Personal precautions** Evacuate personnel to safe areas. Use personal protective equipment as required. See

section 8 for more information. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the

product must be grounded. Do not touch or walk through spilled material.

Other information Ventilate the area. Refer to protective measures listed in Sections 7 and 8.

Methods and material for containment and cleaning up

Methods for containment Stop leak if you can do it without risk. Do not touch or walk through spilled material. A vapor

suppressing foam may be used to reduce vapors. Dike far ahead of spill to collect runoff water. Keep out of drains, sewers, ditches and waterways. Absorb with earth, sand or other

non-combustible material and transfer to containers for later disposal.

Methods for cleaning up Take precautionary measures against static discharges. Dam up. Soak up with inert

absorbent material. Pick up and transfer to properly labeled containers.

**Prevention of secondary hazards** Clean contaminated objects and areas thoroughly observing environmental regulations.

# 7. Handling and storage

Precautions for safe handling

hot surfaces, sparks, open flames and other ignition sources. No smoking. Use grounding

and bonding connection when transferring this material to prevent static discharge, fire or explosion. Use with local exhaust ventilation. Use spark-proof tools and explosion-proof equipment. Keep in an area equipped with sprinklers. Use according to package label instructions. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse. In case of insufficient ventilation, wear suitable respiratory equipment.

# Conditions for safe storage, including any incompatibilities

### **Storage Conditions**

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labeled containers. Do not store near combustible materials. Keep in an area equipped with sprinklers. Store in accordance with the particular national regulations. Store in accordance with local regulations. Store locked up. Keep out of the reach of children. Store away from other materials.

# 8. Exposure controls/personal protection

#### Control parameters

### **Exposure Limits**

The following ingredients are the only ingredients of the product above the cut-off level (or level that contributes to the hazard classification of the mixture) which have an exposure limit applicable in the region for which this safety data sheet is intended or other recommended limit. At this time, the other relevant constituents have no known exposure limits from the sources listed here.

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
Asphalt (at Ambient Temperature)	TWA: 0.5 mg/m <sup>3</sup>	-	Ceiling: 5 mg/m³ fume 15 min
8052-42-4	Benzene-soluble aerosol		
	fume, inhalable particulate		
	matter		15111 2222 / 2
Mineral Spirits (with < 0.1% Benzene)	TWA: 100 ppm	TWA: 500 ppm	IDLH: 20000 mg/m <sup>3</sup>
8052-41-3		TWA: 2900 mg/m <sup>3</sup>	Ceiling: 1800 mg/m <sup>3</sup> 15 min
		(vacated) TWA: 100 ppm	TWA: 350 mg/m <sup>3</sup>
Hydratod Aluminum Magnesium	TWA: 1 mg/m <sup>3</sup> respirable	(vacated) TWA: 525 mg/m <sup>3</sup>	
Hydrated Aluminum-Magnesium Silicate	particulate matter	-	-
12174-11-7	particulate matter		
Calcium Carbonate	_	_	TWA: 10 mg/m³ total dust
471-34-1			TWA: 5 mg/m³ respirable
			dust
Cellulose Fiber	TWA: 10 mg/m <sup>3</sup>	TWA: 15 mg/m <sup>3</sup> total dust	TWA: 10 mg/m³ total dust
9004-34-6		TWA: 5 mg/m <sup>3</sup> respirable	TWA: 5 mg/m <sup>3</sup> respirable
		fraction	dust
		(vacated) TWA: 15 mg/m <sup>3</sup>	TWA: 1 mg/m³
		total dust	
		(vacated) TWA: 5 mg/m <sup>3</sup>	
		respirable fraction	
		(vacated) TWA: 5 mg/m <sup>3</sup> (vacated) STEL: 10 mg/m <sup>3</sup>	
Kaolin	TWA: 2 mg/m³ particulate	TWA: 15 mg/m³ total dust	TWA: 10 mg/m <sup>3</sup> total dust
1332-58-7	matter containing no asbestos		TWA: 10 mg/m total ddst   TWA: 5 mg/m <sup>3</sup> respirable
1002 00 7	and <1% crystalline silica,	fraction	dust
	respirable particulate matter	(vacated) TWA: 10 mg/m <sup>3</sup>	
	,,	total dust	
		(vacated) TWA: 5 mg/m <sup>3</sup>	
		respirable fraction	

### Biological occupational exposure limits

Chemical name	ACGIH
Asphalt (at Ambient Temperature)	2.5 µg/L - urine (1-Hydroxypyrene with hydrolysis) - end of
8052-42-4	shift at end of workweek

### Appropriate engineering controls

**Engineering controls** Showers

> Eyewash stations Ventilation systems.

### Individual protection measures, such as personal protective equipment

Tight sealing safety goggles. Eye/face protection

Hand protection Wear suitable gloves. Impervious gloves.

Skin and body protection Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron.

Antistatic boots.

Appropriate respiratory protection should be selected and used according to the chemical Respiratory protection

nature, hazards and use of this product and safety requirements of the local jurisdiction. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be

required.

Do not eat, drink or smoke when using this product. Contaminated work clothing should not General hygiene considerations

be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Wear suitable gloves and eye/face protection. Avoid contact with skin, eyes or clothing.

# 9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state Liquid Thick mastic **Appearance** Color Black

Odor Solvent (Mineral Spirits)

**Odor threshold** 1-30 PPM. Odor thresholds vary greatly. Do not rely on odor threshold alone to determine

potentially hazardous substances.

Property Values Remarks • Method

Not applicable рH

pH (as aqueous solution) None known

None / -70 None / -94 Melting point/freezing point Melting Point is not applicable. Freezing points are

shown.

Boiling point / boiling range 154 °C / 309.2 °F

Flash point > 40.5 °C / 104.90 °F Setaflash **Evaporation rate** 0.1 Butly acetate = 1 Flammability (solid, gas)

Flammability Limit in Air

Flammable above 105 degrees F and 40.5 degrees

C.

7.0 **Upper flammability limit:** Lower flammability limit: 1.6

Vapor pressure 0.3 (kPa) @ 20 °C

Vapor density 5.3 Where: Air = 1 at 68 degrees F (20 degrees C)

Relative density 1.09 Water = 1g/ml

No data available Insoluble Reacts with water to form carbon dioxide Water solubility

Solubility(ies)No data available.InsoluablePartition coefficientNo data available.No data available.Autoignition temperature330 °C / 626 °F

Decomposition temperature

Kinematic viscosity

**Dynamic viscosity** No data available. @ 25 °C

Other information

**Explosive properties**No information available **Oxidizing properties**No information available

Softening point Not applicable

Molecular weight N/A

VOC Content (%)

Density

Bulk density

Less than 300 g/l

9.2 to 9.5 lb/gal

Not applicable

# 10. Stability and reactivity

**Reactivity** No information available.

**Chemical stability** Stable under normal conditions.

Possibility of hazardous reactions None under normal processing.

**Hazardous polymerization** Hazardous polymerization does not occur.

Conditions to avoid Heat, flames and sparks.

**Incompatible materials** Strong acids. Strong bases. Strong oxidizing agents.

Hazardous decomposition products Combustion may produce carbon monoxide, carbon dioxide, and other asphyxiants.

# 11. Toxicological information

### Information on likely routes of exposure

#### **Product Information**

**Inhalation** Specific test data for the substance or mixture is not available. Aspiration into lungs can

produce severe lung damage. May cause pulmonary edema. Pulmonary edema can be fatal. May cause irritation of respiratory tract. May cause drowsiness or dizziness.

**Eye contact** Specific test data for the substance or mixture is not available. May cause irritation. Causes

serious eye irritation. (based on components). May cause redness, itching, and pain.

**Skin contact** Repeated exposure may cause skin dryness or cracking. Specific test data for the

substance or mixture is not available. Causes skin irritation. (based on components).

**Ingestion** Specific test data for the substance or mixture is not available. Potential for aspiration if

swallowed. May cause lung damage if swallowed. Aspiration may cause pulmonary edema and pneumonitis. May be fatal if swallowed and enters airways. Ingestion may cause

gastrointestinal irritation, nausea, vomiting and diarrhea.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Difficulty in breathing. Coughing and/ or wheezing. Dizziness. Redness. May cause redness

and tearing of the eyes. Inhalation of high vapor concentrations may cause symptoms like

headache, dizziness, tiredness, nausea and vomiting.

Acute toxicity

### Numerical measures of toxicity

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

 ATEmix (oral)
 5,100.20 mg/kg

 ATEmix (dermal)
 2,024.90 mg/kg

 ATEmix (inhalation-gas)
 99,999.00 ppm

 ATEmix (inhalation-vapor)
 99,999.00 mg/l

 ATEmix (inhalation-dust/mist)
 20.00 mg/l

**Component Information** 

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Asphalt (at Ambient Temperature) 8052-42-4	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 94.4 mg/m³ (Rat) 4.5 h
Mineral Spirits (with < 0.1% Benzene) 8052-41-3	-	> 3000 mg/kg (Rabbit)	> 5.5 mg/L (Rat)4 h
Calcium Carbonate 471-34-1	= 6450 mg/kg (Rat)	> 2000 mg/kg (Rat)	> 3 mg/L (Rat) 4 h
Cellulose Fiber 9004-34-6	> 5 g/kg (Rat)	> 2000 mg/kg (Rabbit)	> 5800 mg/m³ (Rat)4 h
Solvent Naphtha 64742-95-6	= 8400 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	= 3400 ppm (Rat) 4 h
Kaolin 1332-58-7	> 5000 mg/kg (Rat)	> 5000 mg/kg (Rat)	-

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

**Skin corrosion/irritation** Classification based on data available for ingredients. Causes skin irritation.

Serious eye damage/eye irritation Classification based on data available for ingredients. Causes serious eye irritation.

**Respiratory or skin sensitization** No information available.

Germ cell mutagenicity No information available.

Carcinogenicity Contains a known or suspected carcinogen. Classification based on data available for

ingredients. May cause cancer.

The table below indicates whether each agency has listed any ingredient as a carcinogen

The table below indicates whether each agency has listed any ingredient as a carollogen.				
Chemical name	ACGIH	IARC	NTP	OSHA
Hydrated Aluminum-Magnesium	-	Group 2B	-	X
Silicate				
12174-11-7				
Cellulose Fiber	-	-	Known	-
9004-34-6				

Legend

IARC (International Agency for Research on Cancer)

Group 2B - Possibly Carcinogenic to Humans

NTP (National Toxicology Program)

Known - Known Carcinogen

Occupational Safety and Health Administration of the US Department of Labor

X - Present

**Reproductive toxicity**No information available.

**Developmental Toxicity**None known for product as a whole.

Teratogenicity None known.

**STOT - single exposure** May cause respiratory irritation. May cause drowsiness or dizziness.

**STOT - repeated exposure**May cause damage to organs through prolonged or repeated exposure.

Target organ effects Kidney, Respiratory system, Eyes, Skin, Central nervous system, Gastrointestinal tract (GI).

**Aspiration hazard** May be fatal if swallowed and enters airways.

Other adverse effects N/A.

Interactive effects No information available.

# 12. Ecological information

# **Ecotoxicity**

Chemical name	Algae/aquatic plants	Fish	Toxicity to	Crustacea
			microorganisms	
Solvent Naphtha	-	LC50: =9.22mg/L (96h,	-	EC50: =6.14mg/L (48h,
64742-95-6		Oncorhynchus mykiss)		Daphnia magna)

Persistence and degradability N/A.

### **Bioaccumulation**

**Component Information** 

compension memation		
	Chemical name	Partition coefficient
Asphalt (at Ambient Temperature)		6
	8052-42-4	

Other adverse effects No information available.

# 13. Disposal considerations

### Waste treatment methods

Waste from residues/unused products

Should not be released into the environment. Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld

containers.

# 14. Transport information

DOT

UN/ID no. 1993 Hazard Class 3 Packing Group III

**TDG** 

**UN/ID no.** NA 1993

Proper shipping name Combustible liquid, n.o.s

Hazard Class 3
Packing Group III

MEX Regulated Not regulated.

**UN/ID no.** NA 1993

Proper shipping name Combustible liquid, n.o.s.

ICAO (air) Regulated Not regulated.

**UN/ID no.** 1993

IATA Regulated Not regulated.

UN number or ID number 1993

IMDG Regulated Not regulated.

UN number or ID number 1993

# 15. Regulatory information

#### **International Inventories**

TSCA All of the components of this product are listed on the US TSCA (Toxic Substances Control

Act) Inventory or are exempt.

Chemical name	CAS No.	Inventory Listing Status	Commercial Activity Designation
Asphalt (at Ambient Temperature)	8052-42-4	Present	Active
Mineral Spirits (with < 0.1% Benzene)	8052-41-3	Present	Active
Hydrated Aluminum-Magnesium Silicate	12174-11-7	-	Unknown *
Calcium Carbonate	471-34-1	Present	Active
Cellulose Fiber	9004-34-6	Present	Active
Solvent Naphtha	64742-95-6	Present	Active
Kaolin	1332-58-7	Present	Active

<sup>\*</sup>Contact supplier for details. One or more substances in this product are either not listed on the US TSCA inventory, listed on the confidential US TSCA inventory or are otherwise exempted from inventory listing requirements

**DSL/NDSL** All of the components of this product are listed on the DSL.

**EINECS/ELINCS** All components are listed.

TCSI Contact supplier for inventory compliance status.

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

NZIoC - New Zealand Inventory of Chemicals

TCSI - Taiwan Chemical Substance Inventory

# **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

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

### **CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

#### **CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

### **US State Regulations**

#### **California Proposition 65**

This product contains the following Proposition 65 chemicals:.

Chemical name	California Proposition 65
Hydrated Aluminum-Magnesium Silicate - 12174-11-7	Carcinogen
Cellulose Fiber - 9004-34-6	Carcinogen

# U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Asphalt (at Ambient Temperature) 8052-42-4	X	X	X
Mineral Spirits (with < 0.1% Benzene) 8052-41-3	X	X	X
Cellulose Fiber 9004-34-6	X	X	X
Kaolin 1332-58-7	X	X	X

### U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

# 16. Other information

NFPA Health hazards 2 Flammability 2 Instability 0 Special hazards - HMIS Health hazards 2 Flammability 2 Physical hazards 0 Personal protection -

Chronic Hazard Star Legend

\* = Chronic Health Hazard

# Key or legend to abbreviations and acronyms used in the safety data sheet

Legend

SVHC: Substances of Very High Concern for Authorization:
PBT: Persistent, Bioaccumulative, and Toxic (PBT) Substances
vPvB: Very Persistent and very Bioaccumulative (vPvB) Substances

STOT: Specific Target Organ Toxicity

ATE: Acute Toxicity Estimate LC50: 50% Lethal Concentration

LD50: 50% Lethal Dose

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA TWA (time-weighted average) STEL STEL (Short Term Exposure Limit)

Ceiling Maximum limit value \* Skin designation

+ Sensitizers

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR) U.S. Environmental Protection Agency ChemView Database

European Food Safety Authority (EFSA)

**Environmental Protection Agency** 

Acute Exposure Guideline Level(s) (AEGL(s))

U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act

U.S. Environmental Protection Agency High Production Volume Chemicals

Food Research Journal

Hazardous Substance Database

International Uniform Chemical Information Database (IUCLID)

National Institute of Technology and Evaluation (NITE)

Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)

NIOSH (National Institute for Occupational Safety and Health)

National Library of Medicine's ChemID Plus (NLM CIP)

National Library of Medicine's PubMed database (NLM PUBMED)

U.S. National Toxicology Program (NTP)

New Zealand's Chemical Classification and Information Database (CCID)

Organization for Economic Co-operation and Development Environment, Health, and Safety Publications Organization for Economic Co-operation and Development High Production Volume Chemicals Program

Organization for Economic Co-operation and Development Screening Information Data Set

World Health Organization

Prepared By Lucas Technical Service Department.

Revision Date 04-Feb-2025

Revision Note N/A.

**Disclaimer** 

The information provided in this 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.