



SAFETY DATA SHEET

This safety data sheet complies with the requirements of: 29CFR1910.1200

Issue Date 21-Jun-2023

Revision Date 21-Jun-2023

Version 1

Product identifier

Product Name Universal Thermoplastic Roof Coating

Other means of identification

Product Code LUCAS 6000

UN/ID no. UN 1993

Synonyms SEALANT

Recommended use of the chemical and restrictions on use

Recommended Use A white solvent-based coating used to repair asphalt, modified bitumen, metal, Kynar, concrete, PVC, and EPDM roofs.

Uses advised against For exterior use only. Do not use indoors.

Details of the supplier of the safety data sheet

Manufacturer Address R.M. Lucas Company
12400 South Laramie Ave
Alsip, Illinois 60803
(773) 523-4300

Emergency telephone number

Emergency Telephone Call CHEMTREC Day or Night:
Within USA and Canada: 1-800 424-9300

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Carcinogenicity	Category 2
Specific target organ toxicity (repeated exposure)	Category 1
Aspiration toxicity	Category 1
Flammable liquids	Category 3

Label elements

Emergency Overview

Danger

Hazard statements

Suspected of causing cancer
Causes damage to organs through prolonged or repeated exposure
May be fatal if swallowed and enters airways
Flammable liquid and vapor

**Appearance** Viscous**Physical state** Liquid**Odor** Solvent (Mineral Spirits)**Precautionary Statements - Prevention**

Obtain special instructions before use
 Do not handle until all safety precautions have been read and understood
 Use personal protective equipment as required
 Do not breathe dust/fume/gas/mist/vapors/spray
 Wash face, hands and any exposed skin thoroughly after handling
 Do not eat, drink or smoke when using this product
 Keep away from heat/sparks/open flames/hot surfaces. - No smoking
 Keep container tightly closed when product is not in use.
 Ground/bond container and receiving equipment
 Use explosion-proof electrical/ventilating/lighting/equipment
 Use only non-sparking tools
 Take precautionary measures against static discharge

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention
 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
 Do NOT induce vomiting
 In case of fire: Use CO₂, dry chemical, or foam for extinction

Precautionary Statements - Storage

Store locked up
 Store in a well-ventilated place. Keep cool

Precautionary Statements - Disposal

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

Hazards not otherwise classified (HNOC)

Not applicable

Other Information

- Causes mild skin irritation
- Toxic to aquatic life with long lasting effects
- Harmful to aquatic life

Unknown acute toxicity 35% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance**Mixture**

This product is a mixture.

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Common name White Roof Coating.
Synonyms SEALANT.
Chemical nature Organic solvents and additives.

Chemical Name	CAS No.	Weight-%	Trade Secret
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Calcium Carbonate	471-34-1	20 - 30%	*
Mineral Spirits (with < 0.1% Benzene)	8052-41-3	10 - 20%	*
Hydrocarbon Resin	69430-35-9	10 - 20%	*
Styrene/Butadiene Copolymer	66070-58-4	10 - 20%	*
Aromatic Naptha (with <0.1% Benzene)	64742-95-6	10 - 20%	*
Trade Secret	Proprietary	10 - 20%	*
Titanium Dioxide	13463-67-7	0 - 10%	*
1,2,4 Trimethylbenzene	95-63-6	0 - 10%	*
Hydrated Aluminum-Magnesium Silicate (Attapulgate)	12174-11-7	0 - 10%	*
Ethylbenzene	100-41-4	0 - 10%	*

4. FIRST AID MEASURES

Description of first aid measures

General advice	Contains petroleum distillate. Harmful or fatal if swallowed. Vapor harmful. May affect the brain or central nervous system causing dizziness, headache, or nausea. Reports have associated repeated and prolonged occupational exposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal.
Eye contact	In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Skin contact	Wash thoroughly with soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing before reuse. In the case of skin irritation or allergic reactions see a physician.
Inhalation	Move to fresh air in case of accidental inhalation of vapors. If continued difficulty with breathing is experienced, get medical attention immediately.
Ingestion	Not an expected route of exposure. If swallowed, do not induce vomiting. Get medical attention immediately.
Self-protection of the first aider	First aider: Pay attention to self-protection!.

Most important symptoms and effects, both acute and delayed

Symptoms	May cause skin irritation. May cause eye irritation.
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Indication of any immediate medical attention and special treatment needed

Note to physicians	Treat symptomatically.
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5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Dry chemical. Carbon dioxide (CO₂). Sand. Use foam or water FOG as a last resort.

Unsuitable extinguishing media Do not use a solid water stream as it may scatter and spread fire.

Specific hazards arising from the chemical

Sealed container may rupture/burst when heated or exposed to excessive heat.

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

Explosion data

Sensitivity to Mechanical Impact Not sensitive.

Sensitivity to Static Discharge May be ignited by heat, sparks or flames.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions No action should be taken involving any personal risk or without suitable training. Use personal protective equipment as required.

Other Information Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area).

For emergency responders Use personal protection recommended in Section 8.

Environmental precautions

Environmental precautions Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Prevent product from entering sewers, drains, or waterways. Local authorities should be advised if significant spillages can not be contained. See Section 12 for additional ecological information.

Methods and material for containment and cleaning up

Methods for containment Contain spillage with non-combustible absorbent material, e.g. sand, earth, diatomaceous earth, vermiculite.

Methods for cleaning up Pick up the absorbed material (described just above) and transfer to properly labeled containers for disposal according to local / national regulations (see Section 13).

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

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Use personal protective equipment as required. Remove all sources of ignition. Use only outdoors.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a cool, dry, well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition.

Incompatible materials Strong acids. Strong oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Calcium Carbonate 471-34-1	-	-	TWA: 10 mg/m ³ total dust TWA: 5 mg/m ³ respirable dust
Mineral Spirits (with < 0.1% Benzene) 8052-41-3	TWA: 100 ppm	TWA: 500 ppm TWA: 2900 mg/m ³ (vacated) TWA: 100 ppm (vacated) TWA: 525 mg/m ³	IDLH: 20000 mg/m ³ Ceiling: 1800 mg/m ³ 15 min TWA: 350 mg/m ³
Trade Secret	TWA: 0.1 ppm	-	-
Titanium Dioxide	TWA: 10 mg/m ³	TWA: 15 mg/m ³ total dust	IDLH: 5000 mg/m ³

13463-67-7		(vacated) TWA: 10 mg/m ³ total dust	TWA: 2.4 mg/m ³ CIB 63 fine TWA: 0.3 mg/m ³ CIB 63 ultrafine, including engineered nanoscale
1,2,4 Trimethylbenzene 95-63-6	-	-	TWA: 25 ppm TWA: 125 mg/m ³
Hydrated Aluminum-Magnesium Silicate (Attapulgite) 12174-11-7	TWA: 1 mg/m ³ respirable particulate matter	-	-
Ethylbenzene 100-41-4	TWA: 20 ppm	TWA: 100 ppm TWA: 435 mg/m ³ (vacated) TWA: 100 ppm (vacated) TWA: 435 mg/m ³ (vacated) STEL: 125 ppm (vacated) STEL: 545 mg/m ³	IDLH: 800 ppm TWA: 100 ppm TWA: 435 mg/m ³ STEL: 125 ppm STEL: 545 mg/m ³

Appropriate engineering controls**Engineering Controls**

Use natural cross ventilation, local (mechanical) pick-up, and/or general area mechanical cross ventilation. Ventilation pattern should be designed to prevent accumulation of vapors. Ventilation must be sufficient to maintain vapor concentrations below the TWA limits outlined above.

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 that is resistant to chemical penetration.

Respiratory protection

No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, a NIOSH/MSHA approved respiratory protection should be worn.

General Hygiene Considerations

Wash face, hands and any exposed skin thoroughly after handling. Wash contaminated clothing before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid	Odor	Solvent (Mineral Spirits)
Appearance	Viscous	Odor threshold	1-30 PPM. Odor thresholds vary greatly. Do not rely on odor threshold alone to determine potentially hazardous substances.
Color	White		
Property	Values	Remarks • Method	
pH	Not applicable		
Melting point/freezing point	None / -70 276F None/ -94 °F	Melting Point is not applicable. Freezing points are shown.	
Boiling point / boiling range	> 154 276F / 310 °F		
Flash point	> 40.5 276F / > 105 °F	Setaflash	
Evaporation rate	0.1	Butly acetate = 1	
Flammability (solid, gas)	No information available		
Flammability Limit in Air		Flammable above 105 degrees F and 40.5 degrees C.	
Upper flammability limit:	7.0		
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)	
Specific Gravity	1.1	Water = 1g/ml	
Water solubility	Insoluble		

Solubility in other solvents	Soluble in aromatic and aliphatic solvents.	
Partition coefficient	No information available	No data available.
Autoignition temperature	330 276F / 626 °F	
Decomposition temperature	No information available	
Kinematic viscosity	No information available	
Dynamic viscosity	No information available	
Explosive properties	Vapor accumulation could flash or explode if ignited.	
Oxidizing properties	None	

Other Information

Softening point	Not applicable
Molecular weight	No information available
VOC Content (%)	Less than 500 g/l
Density	9.2 lb/gal
Bulk density	Not applicable

10. STABILITY AND REACTIVITY**Reactivity**

Not applicable

Chemical stability

Stable.

Possibility of Hazardous Reactions

None under normal use.

Hazardous polymerization Hazardous polymerization does not occur.

Conditions to avoid

Avoid static discharge. Avoid heat, sparks, and open flame.

Incompatible materials

Strong acids. 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	Toxicological testing has not been conducted for this product overall. Available toxicological data for individual ingredients are summarized below.
Inhalation	Avoid breathing vapors or mists.
Eye contact	Avoid contact with eyes. Contact with eyes may cause irritation.
Skin contact	May cause irritation.
Ingestion	If swallowed, do not induce vomiting. Get medical attention immediately. Not an expected route of exposure.
Component Information	* The IARC Monograph (Vol 93, 2010, Carbon Black, Titanium Dioxide, Talc) states: "Operators in user industries who handle fluffy or pelleted Carbon Black during rubber, paint and ink production are expected to have significantly lower exposures to Carbon Black than workers in Carbon Black production. Other workers in user industries who handle it occasionally have little opportunity for exposure. And further..." End-users of

these products (rubber, ink or paint) are unlikely to be exposed to airborne Carbon Black particles, which are bound within the product matrix." * No significant exposure to Crystalline Silica (Quartz) is thought to occur during the use of products in which Crystalline Silica (Quartz) is bound to other materials, such as in paints and coatings. As one reference, see California Office of Health Hazard Assessment at:
http://www.oehha.org/prop65/CRNR_notices/safe_use/sylicasud2.html

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Calcium Carbonate 471-34-1	= 6450 mg/kg (Rat)	-	-
Aromatic Naptha (with <0.1% Benzene) 64742-95-6	= 8400 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	= 3400 ppm (Rat) 4 h
Trade Secret	= 3600 mg/kg (Rat) > 2000 mg/kg (Rat)	> 2000 mg/kg (Rat)	= 14374 ppm (Rat) 4 h = 253 g/m ³ (Rat) 30 min
Titanium Dioxide 13463-67-7	> 10000 mg/kg (Rat)	-	-
1,2,4 Trimethylbenzene 95-63-6	= 3280 mg/kg (Rat)	> 3160 mg/kg (Rabbit)	= 18 g/m ³ (Rat) 4 h
Ethylbenzene 100-41-4	= 3500 mg/kg (Rat)	= 15400 mg/kg (Rabbit)	= 17.4 mg/L (Rat) 4 h

Information on toxicological effects

Symptoms

Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

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

Skin corrosion/irritation

Can cause skin irritation.

Serious eye damage/eye irritation

Irritating to eyes.

Irritation

Irritating to eyes, respiratory system and skin.

Corrosivity

Not classified.

Sensitization

May cause sensitization of susceptible persons.

Germ cell mutagenicity

This product does not contain any ingredients that cause germ cell mutagenicity.

Carcinogenicity

The table below indicates whether each agency (ACGIH, IARC, NTP, or OSHA) has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Trade Secret	A3	Group 2B	Reasonably Anticipated	X
Titanium Dioxide 13463-67-7	-	Group 2B	-	X
Hydrated Aluminum-Magnesium Silicate (Attapulgite) 12174-11-7	-	Group 2B	-	X
Ethylbenzene 100-41-4	A3	Group 2B	-	X

Legend

ACGIH (American Conference of Governmental Industrial Hygienists)

A1 - Known Human Carcinogen

A2 - Suspected Human Carcinogen

A3 - Animal Carcinogen

A4 - Not Classifiable as a Human Carcinogen

IARC (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

Group 2A - Probably Carcinogenic to Humans

Group 2B - Possibly Carcinogenic to Humans

Group 3 - Not classifiable as a human carcinogen.

NTP (National Toxicology Program)

Known - Known Carcinogen

Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

Reproductive toxicity

None known for product as a whole.

Developmental Toxicity

None known for product as a whole.

Teratogenicity

None known.

STOT - single exposure No information available.
 STOT - repeated exposure No information available.
 Aspiration hazard No information available.

Numerical measures of toxicity - No information available

The following values are calculated based on chapter 3.1 of the GHS document For exterior use only. Do not use indoors.

ATEmix (oral) 9,003.00
 ATEmix (dermal) 7,611.00
 ATEmix (inhalation-gas) 43,400.00
 ATEmix (inhalation-dust/mist) 11.63

12. ECOLOGICAL INFORMATION

Ecotoxicity

The following table lists information related to aquatic toxicity

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Aromatic Naptha (with <0.1% Benzene) 64742-95-6	-	9.22: 96 h Oncorhynchus mykiss mg/L LC50	6.14: 48 h Daphnia magna mg/L EC50
Trade Secret	-	67.3: 96 h Pimephales promelas mg/L LC50 flow-through	-
1,2,4 Trimethylbenzene 95-63-6	-	7.19 - 8.28: 96 h Pimephales promelas mg/L LC50 flow-through	6.14: 48 h Daphnia magna mg/L EC50
Ethylbenzene 100-41-4	1.7 - 7.6: 96 h Pseudokirchneriella subcapitata mg/L EC50 static 2.6 - 11.3: 72 h Pseudokirchneriella subcapitata mg/L EC50 static 4.6: 72 h Pseudokirchneriella subcapitata mg/L EC50 438: 96 h Pseudokirchneriella subcapitata mg/L EC50	11.0 - 18.0: 96 h Oncorhynchus mykiss mg/L LC50 static 7.55 - 11: 96 h Pimephales promelas mg/L LC50 flow-through 9.1 - 15.6: 96 h Pimephales promelas mg/L LC50 static 32: 96 h Lepomis macrochirus mg/L LC50 static 4.2: 96 h Oncorhynchus mykiss mg/L LC50 semi-static 9.6: 96 h Poecilia reticulata mg/L LC50 static	1.8 - 2.4: 48 h Daphnia magna mg/L EC50

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Chemical Name	Partition coefficient
Trade Secret	2.1
1,2,4 Trimethylbenzene 95-63-6	3.63
Ethylbenzene 100-41-4	3.2

Other adverse effects No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

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

Contaminated packaging Do not reuse container.

Chemical Name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Ethylbenzene 100-41-4	-	Included in waste stream: F039	-	-

Chemical Name	California Hazardous Waste Status
Ethylbenzene 100-41-4	Toxic Ignitable

14. TRANSPORT INFORMATION

DOT

UN/ID no. UN 1993
 Proper shipping name Combustible liquid, n.o.s
 Packing Group II

TDG

UN/ID no. NA 1993
 Proper shipping name Combustible liquid, n.o.s
 Hazard Class 3
 Packing Group II

MEX

Not regulated.

ICAO (air)

Not regulated.

IATA

Not regulated.

IMDG

Not regulated.

RID

Not regulated.

ADR

Not regulated.

ADN

Not regulated.

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.

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

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDL - 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 contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	SARA 313 - Threshold Values %
Trade Secret -	0.1
1,2,4 Trimethylbenzene - 95-63-6	1.0

Ethylbenzene - 100-41-4	0.1
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SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	Yes
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
Ethylbenzene 100-41-4	1000 lb	X	X	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)
Ethylbenzene 100-41-4	1000 lb	-	RQ 1000 lb final RQ RQ 454 kg final RQ

US State Regulations**California Proposition 65**

This product contains the following Proposition 65 chemicals

Chemical Name	California Proposition 65
Trade Secret -	Carcinogen Developmental Female Reproductive Male Reproductive
Titanium Dioxide - 13463-67-7	Carcinogen
Hydrated Aluminum-Magnesium Silicate (Attapulgate) - 12174-11-7	Carcinogen
Ethylbenzene - 100-41-4	Carcinogen

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Mineral Spirits (with < 0.1% Benzene) 8052-41-3	X	X	X
Trade Secret	X	X	X
Titanium Dioxide 13463-67-7	X	X	X
1,2,4 Trimethylbenzene 95-63-6	X	X	X
Ethylbenzene 100-41-4	X	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 -
Chronic Hazard Star Legend * = Chronic Health Hazard				

Prepared By	Prepared by Steve Velten
Issue Date	21-Jun-2023
Revision Date	21-Jun-2023

Revision Note

No information available

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.

End of Safety Data Sheet