SAFETY DATA SHEET

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

Issue Date 12-Jul-2018 **Revision Date** 20-Dec-2018 **Version** 3

Product identifier

Product Name Asphalt Emulsion

Other means of identification

Product Code LUCAS 502

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended Use Roof Coating. An economical means of recoating and preserving smooth-surface asphalt roofs. Foundation coating.

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
3211 South Wood Street
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. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

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

Label elements

Emergency Overview

Appearance Viscous **Physical state** Liquid **Odor** Low

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

• May be harmful in contact with skin

Unknown acute toxicity 51.4% 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 Asphalt Emulsion Roof Coating.
Synonyms None.
Chemical nature Aqueous solution.

Chemical Name	CAS No.	Weight-%	Trade Secret
Water	7732-18-5	40 - 50%	*
Asphalt (at Ambient Temperature)	8052-42-4	40 - 50%	*
Bentonite	1302-78-9	0 - 10%	*

4. FIRST AID MEASURES

Description of first aid measures

General advice Under conditions of normal use, no hazards are anticipated which require special first aid measures.

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.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

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
No information available.

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 Not sensitive.

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 Extremely slippery when spilled.

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. Use only outdoors.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep from freezing. Keep containers tightly closed in a cool, dry, well-ventilated place.

Incompatible materials Strong acids. Strong oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines .

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Asphalt (at Ambient Temperature) 8052-42-4	TWA: 0.5 mg/m³ benzene-soluble aerosol fume, inhalable particulate matter	-	Ceiling: 5 mg/m³ fume 15 min
Bentonite 1302-78-9	TWA: 1 mg/m³ respirable particulate matter	-	-

Appropriate engineering controls

Engineering Controls None under normal outdoor use conditions.

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.
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		
Appearance	Viscous	**Odor**	Low
Color	Black	**Odor threshold**	Negligible odor.

Property	**Values**	**Remarks • Method**
pH	Not applicable	
Melting point/freezing point	None / 0 °C None / 32 °F	Melting Point is not applicable. Freezing points are shown.
Boiling point / boiling range	> 100 °C / 212 °F	
Flash point	Not applicable °C / Not applicable °F	Non Flammable
Evaporation rate	The evaporation rate of the water component of this emulsion product is dependent upon: 1) The temperature of the water at the air-water surface; 2) The humidity of the air; 3) The area of the air-water surface; 4) The temperature of the air. No information available	No data available. Evaporation rate is dependent upon atmospheric conditions.
Flammability (solid, gas)	Non Flammable	
Flammability Limit in Air		Not flammable
Upper flammability limit:	Not applicable	
Lower flammability limit:	Not applicable	
Vapor pressure	2.33 (kPa)	@ 20 °C
Vapor density	5.3	Where: Air = 1 at 68 degrees F (20 degrees C)
Specific Gravity	0.95	Water = 1g/ml
Water solubility	Dispersible	
Solubility in other solvents	Soluble in aromatic and aliphatic solvents.	
Partition coefficient	No information available	No data available.
Autoignition temperature	330 °C / 626 °F	
Decomposition temperature	No information available	
Kinematic viscosity	No information available	
Dynamic viscosity	No information available	
Explosive properties	Not an explosive	
Oxidizing properties	None	

Other Information

Softening point	Not applicable
Molecular weight	No information available
VOC Content (%)	Less than 50 g/l
Density	7.8 to 8.1 lb/gal
Bulk density	Not applicable

10. STABILITY AND REACTIVITY

Reactivity	
Not applicable	Not applicable

Chemical stability

Stable.

Possibility of Hazardous Reactions
None under normal use.

Hazardous polymerization Hazardous polymerization does not occur.

Conditions to avoid
None known for product as a whole.

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 individualingredients 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. 103, 2013, Bitumen and Bitumen Emissions) defines Asphalt as 'Group 2B, Possible Carcinogen to Humans'. This definition is based on studies of exposure to Asphalt fumes at elevated temperatures. The Monograph states that temperature plays an important role in determining the degree of exposure and also the carcinogenic potential of bitumen emissions. This same Monograph states that Asphalt is non volatile at ambient temperature. There is no data presented in the Monograph to demonstrate that Asphalt at ambient temperature is considered a carcinogen. Since the normal use of this product is at ambient temperature, the Asphalt used in this product is not listed as a carcinogen. No other national or international agency has defined Asphalt as a carcinogen.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Water 7732-18-5	> 90 mL/kg (Rat)	-	-
Asphalt (at Ambient Temperature) 8052-42-4	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 94.4 mg/m^3 (Rat) 4.5 h
Bentonite 1302-78-9	> 5000 mg/kg (Rat)	-	-

Information on toxicological effects

Symptoms No information available.

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 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.

Legend

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 - Product Information

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

ATEmix (oral) 10,050.20
ATEmix (dermal) 4,371.20

12. ECOLOGICAL INFORMATION

Ecotoxicity

1.6 % of the mixture consists of components(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Bentonite 1302-78-9	-	19000: 96 h Oncorhynchus mykiss mg/L LC50 static 8.0 - 19.0: 96 h Salmo gairdneri g/L LC50	-

Persistence and degradability
No information available.

Bioaccumulation
No information available.

Chemical Name	Partition coefficient
Asphalt (at Ambient Temperature) 8052-42-4	>6

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.

14. TRANSPORT INFORMATION

Note: This material is not subject to regulation as a hazardous material for shipping

DOT Not regulated.

TDG Not regulated.

MEX Not regulated.

ICAO (air) Not regulated.

IATA Not regulated.

IMDG Not regulated.

RID Not applicable in the United States. Not regulated.

ADR Not applicable in the United States. Not regulated.

ADN Not applicable in the United States. 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/NDSL 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/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	No
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

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).

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
Water 7732-18-5	-	-	X
Asphalt (at Ambient Temperature) 8052-42-4	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** 1	**Flammability** 1	**Instability** 0	**Physical and Chemical Properties** -
HMIS	**Health hazards** 1	**Flammability** 1	**Physical hazards** 0	**Personal protection** -

Prepared By Prepared by Adam Dunn
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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