



SAFETY DATA SHEET

Creation Date 31-May-1999

Revision Date 29-Apr-2015

Version 1

1. IDENTIFICATION

Product Name TruLo® Asphalt

Synonyms TruLo® Max (Type 1,2,3 & 4), TruLo® Lo Odor Asphalt (Type 1, 2, 3, 4 or Type I, II, III, IV), Built up roofing asphalt, BURA

Product Code OCRA00003

Recommended Use For use in built-up roof construction, construction of some modified bitumen systems, construction of bituminous water retarder systems, for adhering fleece backed single ply roof membranes, and for adhering insulation boards used in various types of roof systems

UN/ID no. UN3257

Manufacturer Address Owens Corning Roofing and Asphalt, LLC
One Owens Corning Parkway
Toledo, Ohio 43659

Company Phone Number 1-800-GET-PINK or 1-800-438-7465
24 Hour Emergency Phone Number Chemtrec 1-800-424-9300
Emergency Telephone 1-419-248-5330 (after 5 pm ET and weekends)

E-mail address safetydatasheet@owenscorning.com
Company Website <http://owenscorning.com/>

2. HAZARDS IDENTIFICATION

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

Carcinogenicity	Category 1B
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Label elements

Danger

Hazard statements

May cause cancer



Precautionary Statements - Obtain special instructions before use

Prevention Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required

Precautionary Statements - Response If exposed or concerned: Get medical advice/attention

Precautionary Statements - Storage Store locked up

Precautionary Statements - Disposal Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

- Dangerous amounts of Hydrogen Sulfide, a highly toxic gas, may be present in the headspace of heated containers.
- This petroleum based product may contain trace amounts of polycyclic aromatic compounds (PACs) including polynuclear aromatic hydrocarbons (PAHs) which can be released when product is heated.

Unknown acute toxicity 12% of the product consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

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

Components

Chemical Name	CAS No.	Weight-%	Trade Secret
Asphalt, oxidized (roofing)	64742-93-4	87-100	*

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

Comments

- Dangerous amounts of Hydrogen Sulfide, a highly toxic gas, may be present in the headspace of heated containers.
- This petroleum based product may contain trace amounts of polycyclic aromatic compounds (PACs) including polynuclear aromatic hydrocarbons (PAHs).
- The remaining components of this product are non-hazardous or are in a small enough quantity as to not meet regulatory thresholds for disclosure. These components contain no substances or impurities which would influence the classification of this product.

4. FIRST AID MEASURES

Description of First Aid Measures

Eye contact

- Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes
- If eye irritation persists: Get medical advice/attention

Skin contact

- **HOT MATERIAL:**
- Immediately drench or immerse area in water to assist in cooling.
- Apply iced water or ice packs to burned area.
- **DO NOT** use iced water or ice packs if the burned area covers more than 10% of the body, as this may contribute to shock.
- **DO NOT** try to remove product from burned area after it has cooled.
- Seek immediate medical attention/advice
- Medical personnel can soften and remove cooled product with petroleum jelly or mineral oil.
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- **COLD MATERIAL**
- Clean exposed skin with mild soap and water.
- If skin irritation persists, call a physician

Inhalation

- If respiratory symptoms develop, move victim to fresh air away from source of exposure and into fresh air.
- If symptoms persist, call a physician

Ingestion

- If breathing is difficult, give oxygen
- If breathing has stopped, give artificial respiration. Get medical attention immediately

- **DO NOT** induce vomiting
- Drink 1 or 2 glasses of water
- If vomiting occurs naturally have the person lean forward to reduce the risk of aspiration.
- Get medical attention

Most important symptoms and effects, both acute and delayed

- Irritation nose and throat
- Irritation of eyes and mucous membranes
- Skin irritation
- Unconsciousness
- Corneal damage
- Narcosis
- Decrease in motor functions
- Behavioral changes
- Edema
- Conjunctivitis
- Defatting of skin
- Rash,

Note to physicians

Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

- Treat as fuel oil or hydrocarbon fire.
- Use extinguishing measures that are appropriate to local circumstances and the surrounding environment
- Dry chemical
- Foam
- Carbon dioxide (CO2)
- Use water spray or fog; do not use straight streams
- Use water to cool fire-exposed containers and to protect personnel.

Unsuitable extinguishing media

- Do not use a solid water stream as it may scatter and spread fire

Specific hazards arising from the chemical

- Hot product may ignite flammable materials on contact.

Hazardous combustion products

- Carbon monoxide
- Carbon dioxide (CO2)
- Oxides of sulfur
- Hydrogen sulfide

Explosion data

- Sensitivity to Mechanical Impact** • No data available
- Sensitivity to Static Discharge** • No data available

Protective equipment and precautions for firefighters

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

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions

- Avoid contact with eyes and skin
- Evacuate personnel to safe areas

- Environmental precautions**
- Prevent further leakage or spillage if safe to do so
 - Avoid runoff into storm sewers, ditches and waterways.
 - See Section 12 for additional ecological information

Methods and material for containment and cleaning up

- Methods for containment**
- Contain spill with an inert absorbent material such as soil, sand or oil dry.
 - Prevent from spreading by covering, diking or other means.

- Methods for cleaning up**
- Use personal protective equipment as required
 - Take up mechanically, placing in appropriate containers for disposal
 - Clean contaminated surface thoroughly
 - Cover powder spill with plastic sheet or tarp to minimize spreading and keep powder dry
 - Avoid creating dust

7. HANDLING AND STORAGE

- Precautions for safe handling**
- Handle in accordance with good industrial hygiene and safety practice
 - Hydrogen sulfide, an extremely flammable, colorless, highly toxic gas is emitted from heated asphalt and may accumulate in storage tanks or bulk transport containers.
 - Avoid contact with skin, eyes or clothing
 - Avoid breathing fumes from hot material

Conditions for safe storage, including any incompatibilities

- Storage Conditions**
- Keep in a dry, cool and well-ventilated place
 - Assure proper ventilation of storage or shipping containers to prevent accumulations of hazardous concentrations of off-gassed hydrocarbon gas or H2S

- Incompatible materials**
- Strong oxidizing agents
 - Water

Other Information

Heating - Correct application temperature is Equivocous Temperature (EVT) which is the temperature that the asphalt in the mop bucket or mechanical spreader must be at to achieve asphalt consistency or viscosity necessary to ensure that the correct amount of asphalt is applied to the roof. Minimize temperature to which product is heated in the kettle to obtain EVT during application in order to maintain quality of installed material and reduce hazard from fumes, hydrogen sulfide, kettle cooking and kettle flashes. Maximum kettle temperature should be 50°F less than flashpoint to control generation of fumes and to avoid possible explosion hazard but the product should never be heated over 550°F regardless of flashpoint.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH REL
Hydrogen sulfide 7783-06-4	STEL: 5 ppm TWA: 1 ppm	(vacated) TWA: 10 ppm (vacated) TWA: 14 mg/m ³ (vacated) STEL: 15 ppm (vacated) STEL: 21 mg/m ³ Ceiling: 20 ppm	IDLH: 100 ppm Ceiling: 10 ppm 10 min Ceiling: 15 mg/m ³ 10 min
Asphalt Fume 8052-42-4	TWA: 0.5 mg/m ³ benzene soluble aerosol fume, inhalable fraction	-	Ceiling: 5 mg/m ³ fume 15 min

NIOSH REL Recommended Exposure Limit

Other Information Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Engineering Controls Follow NIOSH guidelines for controlling exposure to fumes that are found in Asphalt Fume Exposures During the Application of Hot Asphalt to Roofs DHHS (NIOSH) Publication No.

2003-112 (June 2003). These include:

1. Use fume suppressing asphalt (TruLo® Max) or kettles with afterburner or kettle loading systems when feasible,
2. Use kettles of appropriate size for the job,
3. Make sure lids fit tightly, close the lid when asphalt is not being added and minimize the number of times that the lid must be opened,
4. Chop the kegs into easy-to-handle pieces before opening lid to reduce time it is open,
5. Place the kettle downwind from workers, and with lid facing away from building,
6. Place the kettle away from air intake vents, doors and windows,
7. Restrict access to the area around kettle,
8. Calibrate kettle thermometers and thermostats at least monthly, and
9. Adhere to EVTs at point of application and use insulated kettles and piping to minimize the kettle temperature needed to achieve the application EVT.

Individual protection measures, such as personal protective equipment

- | | |
|---------------------------------------|---|
| Eye/face protection | <ul style="list-style-type: none"> • Wear safety glasses with side shields (or goggles) • Wear face shield if splash hazard exist. |
| Skin and body protection | <ul style="list-style-type: none"> • Wear protective gloves (heat insulated, leather, lined neoprene coated gloves are recommended when working with hot product). • Wear long sleeved shirt and long pants (cotton or other thermal protective material is recommended). |
| Respiratory protection | <ul style="list-style-type: none"> • When workers are facing concentrations above the exposure limit they must use appropriate certified respirators in accordance with their company's respiratory protection program, local regulations or 29 CFR 1910.134. • If irritation occurs, wear an air purifying respirator with particulate and organic vapor cartridges. • Supplied air respirators or self-contained breathing apparatus should be used when concentrations of hydrogen sulfide exceeds the occupational exposure limit. |
| General Hygiene Considerations | <ul style="list-style-type: none"> • Avoid contact with skin, eyes and clothing. • Wash exposed areas thoroughly after handling this product. • Wash hands and arms frequently. • Shower after exposure. • Wash work clothes when soiled. |

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	TruLo® Max - solid TruLo® Lo Odor - solid when cooled, liquid when heated
Appearance	No information available
Odor	Petroleum
Color	brown, black
pH	No information available
Melting point / freezing point	No information available
Boiling point / boiling range	>= 538 °C / 1000 °F
Flash point	> 302 °C / > 575 °F Cleveland Open Cup
Evaporation rate	No information available
Flammability (solid, gas)	No information available
Flammability Limit in Air	
Upper flammability limit:	No information available
Lower flammability limit:	No information available
Vapor pressure	3 mm Hg @ 20°C
Vapor density	No information available
Water solubility	Insoluble in water
Partition coefficient	No information available
Autoignition temperature	>=343 °C / >=649 °F
Viscosity	No information available
Explosive properties	No information available

Oxidizing properties	No information available
Softening point	No information available
Molecular weight	No information available
VOC Content (%)	No information available
Vapor density	No information available
Bulk density	No information available

10. STABILITY AND REACTIVITY

Reactivity	• No data available
Chemical stability	• Stable under normal conditions
Possibility of Hazardous Reactions	• Hazardous polymerization does not occur
Conditions to avoid	• Heat, flames and sparks • Keep from possible contact with water when product is in liquid state.
Incompatible materials	• Strong oxidizing agents • Water
Hazardous Decomposition Products	• Carbon dioxide (CO ₂) • Carbon monoxide • Combustion products may include sulfur oxides and hydrogen sulfide.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information	• Harmful by inhalation • Harmful by skin contact • Harmful if swallowed
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Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Asphalt, oxidized (roofing) 64742-93-4	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	-

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

Immediate Health Effects:	Inhalation of vapors, fumes and/or mist may cause nose, throat, and mucous membrane irritation, and nausea, headaches or dizziness, and central nervous system depression, including drowsiness, loss of coordination, and unconsciousness. Eye contact may cause severe irritation, redness, tearing, and blurred vision. If ingested, may cause mouth, throat and gastrointestinal tract irritation and upset with possible nausea, vomiting and diarrhea. Aspiration of petroleum distillates into the lungs can cause severe chemical pneumonitis that can be fatal. See Section 8 for exposure controls.
Delayed Health Effects	Prolonged or repeated skin contact may result in dryness and irritation of the skin. Prolonged contact with clothing saturated in petroleum distillates can cause second degree burns. Long term skin exposure to asphalt can increase sensitivity to the sun, and may cause discoloration.
Sensitization	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	The table below indicates whether each agency has listed any ingredient as a carcinogen.

ACGIH (American Conference of Governmental Industrial Hygienists)
A4 - Not Classifiable as a Human Carcinogen
IARC (International Agency for Research on Cancer)
Group 2A - Probably Carcinogenic to Humans

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

Carcinogen

In October 2011, the International Agency for Research on Cancer (IARC) classified occupational exposures to oxidized bitumen (asphalt) and their emissions during roofing as being probably carcinogenic to humans (Group 2 A). 'The Working Group concluded that there was 'limited evidence' in humans for the carcinogenicity of occupational exposures to bitumens and bitumen emissions during roofing. In experimental animals there was 'limited evidence' of carcinogenicity for oxidized bitumens (Class 2), which are mainly used in roofing, and 'sufficient evidence' of carcinogenicity for fume condensates of these oxidized bitumens.' Lancet Oncology, Vol 12, December 2011. Based on a 2000 review of health effects literature, NIOSH concluded that roofing asphalt fumes are a potential occupational carcinogen.

Reproductive toxicity
STOT - single exposure
STOT - repeated exposure
Aspiration hazard

No information available.
No information available.
No information available.
No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity

- Harmful to aquatic life with long lasting effects

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Asphalt, oxidized (roofing) 64742-93-4	56: 72 h Pseudokirchneriella subcapitata mg/L EC50	-	-
Hydrogen sulfide 7783-06-4	-	0.0448: 96 h Lepomis macrochirus mg/L LC50 flow-through 0.016: 96 h Pimephales promelas mg/L LC50 flow-through	0.022: 96 h Gammarus pseudolimnaeus mg/L LC50

Persistence and degradability

- No information available

Bioaccumulation

- No information available

Other adverse effects

- No information available

13. DISPOSAL CONSIDERATIONS

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

U018 U050 U135

Chemical Name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Polycyclic Aromatic Hydrocarbons 130498-29-2	-	Included in waste stream: K022	-	-
Hydrogen sulfide 7783-06-4	U135	-	-	U135

14. TRANSPORT INFORMATION

Note:

- Non-bulk containers of solid material are not regulated.
- Material heated at or above 100°C is regulated.

DOT

UN/ID no. UN3257
Proper shipping name Elevated temperature liquid, n.o.s., at or above 100°C (212°F), and below its flash point
Hazard Class 9
Packing Group III
Special Provisions IB1, T3, TP3, TP29
Description UN3257, Elevated temperature liquid, n.o.s., at or above 100°C (212°F), and below its flash point (Hydrogen sulfide), 9, III
Emergency Response Guide Number 128

TDG

UN/ID no. UN3257
Proper shipping name Elevated temperature liquid, n.o.s., at or above 100°C (212°F), and below its flash point
Hazard Class 9
Packing Group III
Description UN3257, Elevated temperature liquid, n.o.s., at or above 100°C (212°F), and below its flash point, 9, III

MEX

UN/ID no. UN3257
Proper shipping name Elevated temperature liquid, n.o.s., at or above 100°C (212°F), and below its flash point
Hazard Class 9
Packing Group III
Description UN3257, Elevated temperature liquid, n.o.s., at or above 100°C (212°F), and below its flash point (Hydrogen sulfide), 9, III

ICAO (air)

Forbidden Not regulated

IATA

Forbidden Not regulated

IMDG

UN/ID no. UN3257
Proper shipping name Elevated temperature liquid, n.o.s.
Hazard Class 9
Packing Group III
EmS-No. F-A, S-P
Special Provisions 232, 274
Description UN3257, Elevated temperature liquid, n.o.s. (Hydrogen sulfide), 9, III

RID

UN/ID no. UN3257
Proper shipping name Elevated temperature liquid, n.o.s., at or above 100°C (212°F), and below its flash point
Hazard Class 9
Packing Group III
Classification code M9
Description UN3257, Elevated temperature liquid, n.o.s., at or above 100°C (212°F), and below its flash point (Hydrogen sulfide), 9, III
Labels 9

ADR

UN/ID no. UN3257
Proper shipping name Elevated temperature liquid, n.o.s., at or above 100°C (212°F), and below its flash point
Hazard Class 9
Packing Group III
Classification code M9
Tunnel restriction code (D)
Special Provisions 274, 643
Description UN3257, Elevated temperature liquid, n.o.s., at or above 100°C (212°F), and below its flash point (Hydrogen sulfide), 9, III, (D)
Labels 9

ADN

Proper shipping name	Elevated temperature liquid, n.o.s., at or above 100°C (212°F), and below its flash point
Hazard Class	9
Packing Group	III
Classification code	M9
Special Provisions	274, 580, 643
Description	UN3257, Elevated temperature liquid, n.o.s., at or above 100°C (212°F), and below its flash point (Hydrogen sulfide), 9, III
Hazard label(s)	9
Limited quantity (LQ)	0

15. REGULATORY INFORMATION

International Inventories

Chemical Name	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS	AICS
Asphalt, oxidized (roofing) 64742-93-4	X	X		X		X	X	X	X	X

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 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 %
Re-Refined Engine Oil Bottoms - 129893-17-0	1.0

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	Yes
Fire hazard	No
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)

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)

US State Regulations

California Proposition 65

WARNING! This product contains a chemical known in the State of California to cause cancer

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Asphalt, oxidized (roofing) 64742-93-4	X	-	-
Re-Refined Engine Oil Bottoms	X	-	X

129893-17-0			
Polycyclic Aromatic Hydrocarbons 130498-29-2	X	-	X
Chrysene 218-01-9	X	X	X
5-Methylchrysene 3697-24-3	X	X	X
Benz[a]anthracene 56-55-3	X	X	X
Hydrogen sulfide 7783-06-4	X	X	X

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

Creation Date 31-May-1999
Revision Date 29-Apr-2015
Revision Note This Safety Data Sheet replaces the Material Safety Data Sheet numbered 24889.
 Changes include new format to meet US OSHA HAZCOM 2012 requirements

Disclaimer

Reasonable care has been taken in the preparation of this information, but the manufacturer makes no warranty of merchantability or any other warranty, expressed or implied, with respect to this information. The manufacturer makes no representations and assumes no liability for any direct, incidental or consequential damages resulting from its use.

End of Safety Data Sheet