

SAFETY DATA SHEET

SECTION 1

IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

As of the revision date above, this SDS meets the regulations in Ireland and Northern Ireland.

1.1. PRODUCT IDENTIFIER

Product Name: PAVING BITUMEN 160/220 TB
Product Description: Asphalt/Bitumen
Product Code: 1010903010L8

1.2. RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST Intended

Use: Mainly used for road paving, Miscellaneous industrial applications

Identified Uses:

Manufacture of substance
Distribution of substance
Use as an intermediate
Formulation and (re)packing of substances and mixtures
Use in Coatings - Industrial
Use in oil field drilling and production operations - Industrial
Lubricants - Industrial
Use as a fuel - Industrial
Rubber production and processing
Use in Coatings - Professional
Use in oil field drilling and production operations - Professional
Lubricants - Professional (Low Release)
Lubricants - Professional (High Release)
Road and construction applications
Use in Coatings - Consumer

As this product is not classified it may be used in ways other than the above. All product uses should be consistent with the safety guidance in this SDS.

Uses advised against: None unless specified elsewhere in this SDS.

1.3. DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

Supplier: Tennants Bitumen
9 Airport Road West
Belfast
BT3 9ED

Product Technical Information: 02890 455 135
Supplier General Contact: 02890 455 135

1.4. EMERGENCY TELEPHONE NUMBER

24 Hour Emergency Telephone: 07969047411

SECTION 2 HAZARDS IDENTIFICATION

2.1. CLASSIFICATION OF SUBSTANCE OR MIXTURE

Classification according to Regulation (EC) No 1272/2008

Not Classified

2.2. LABEL ELEMENTS

Label elements according to Regulation (EC) No 1272/2008

Hazard Statements:

Supplemental:

EUH210: Safety data sheet available on request.

2.3. OTHER HAZARDS

Physical / Chemical Hazards:

Thermal burn hazard - contact with hot material may cause thermal burns.

Health Hazards:

Exposure to high fume concentrations from heated asphalt may cause eye and respiratory tract irritation. Hydrogen sulphide, a highly toxic gas, may be present. Signs and symptoms of overexposure to hydrogen sulphide include respiratory and eye irritation, dizziness, nausea, coughing, a sensation of dryness and pain in the nose, and loss of consciousness. Odour does not provide a reliable indicator of the presence of hazardous levels in the atmosphere.

Environmental Hazards:

No significant hazards. Material does not meet the criteria for PBT or vPvB in accordance with REACH Annex XIII.



SECTION 3

COMPOSITION / INFORMATION ON INGREDIENTS

3.1. SUBSTANCES Not Applicable. This material is regulated as a mixture.

3.2. MIXTURES

This material is defined as a mixture.

Reportable hazardous substance(s) complying with the classification criteria and/or with an exposure limit (OEL)

Name	CAS#	EC#	Registration#	Concentration *	GHS/CLP classification
Asphalt	8052-42-4	232-490-9	01-2119480172-44	50 - < 60%	OEL
Asphalt, oxidised	64742-93-4	265-196-4	01-2119498270-36	50 - < 60%	OEL

Note - any classification in brackets is a GHS building block that was not adopted by the EU in the CLP regulation (No 1272/2008) and therefore is not applicable in the EU or in non-EU countries which have implemented the CLP regulation and is shown for informational purposes only.

Note: See SDS Section 16 for full text of hazard statements.

SECTION 4

FIRST AID MEASURES

4.1. DESCRIPTION OF FIRST AID MEASURES

INHALATION

Immediately remove from further exposure. Get immediate medical assistance. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. Give supplemental oxygen, if available. If breathing has stopped, assist ventilation with a mechanical device.

SKIN CONTACT

Wash contact areas with soap and water. If burned by contact with hot material, molten material adhering to skin should be cooled as quickly as possible with water, and see a physician for removal of adhering material and treatment of burn.

EYE CONTACT

Flush thoroughly with water for at least 15 minutes. Get medical assistance.

INGESTION

First aid is normally not required. Seek medical attention if discomfort occurs.

4.2. MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

Eye pain, redness, tearing, swelling of eyelids, itching.

4.3. INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

The need to have special means for providing specific and immediate medical treatment available in the workplace is not expected.

SECTION 5 FIRE FIGHTING MEASURES

5.1. EXTINGUISHING MEDIA

Suitable Extinguishing Media: Use dry chemical, carbon dioxide (CO₂), or a dry, non-combustible material such as dry sand or earth to extinguish flames.

Unsuitable Extinguishing Media: DO NOT USE WATER.

5.2. SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

Hazardous Combustion Products: Aldehydes, Hydrogen sulphide, Incomplete combustion products, Oxides of carbon, Smoke, Fume, Sulphur oxides

5.3. ADVICE FOR FIRE FIGHTERS

Fire Fighting Instructions: Evacuate area. Prevent run-off from fire control or dilution from entering streams, sewers or drinking water supply. Fire-fighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

FLAMMABILITY PROPERTIES

Flash Point [Method]: >220°C (428°F) [EN/ISO 2592]

Upper/Lower Flammable Limits (Approximate volume % in air): UEL: 5.0 LEL: 0.5 [Estimated]

Autoignition Temperature: No data available

SECTION 6 ACCIDENTAL RELEASE MEASURES

6.1. PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

NOTIFICATION PROCEDURES

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

PROTECTIVE MEASURES

Avoid contact with spilled material. See Section 5 for fire fighting information. See the Hazard Identification Section for Significant Hazards. See Section 4 for First Aid Advice. See Section 8 for advice on the minimum requirements for personal protective equipment. Additional protective measures may be necessary, depending on the specific circumstances and/or the expert judgment of the emergency responders.

For emergency responders: Respiratory protection: half-face or full-face respirator with filter(s) for organic vapor and, when applicable, H₂S, or Self Contained Breathing Apparatus (SCBA) can be used depending

on the size of spill and potential level of exposure. If the exposure cannot be completely characterized or an oxygen deficient atmosphere is possible or anticipated, SCBA is recommended. Chemical goggles and face shield are recommended if contact of eyes with hot product or vapours is possible. Small spills: normal work clothes are usually adequate. Large spills: full body suit of chemical and thermal resistant material is recommended. Work gloves (preferably gauntlet style) that provide adequate chemical resistance. Note: gloves made of polyvinyl acetate (PVA) are not water-resistant and are not suitable for emergency use. If contact with hot product is possible or anticipated, heat-resistant and thermally insulated gloves are recommended.

6.2. ENVIRONMENTAL PRECAUTIONS

Large Spills: Dyke far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas.

6.3. METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP

Land Spill: Stop leak if you can do so without risk. Do not touch or walk through spilled material. Prevent entry into waterways, sewer, basements or confined areas. A vapour-suppressing foam may be used to reduce vapour. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.

Water Spill: Stop leak if you can do so without risk. Material will sink. Consult an expert.

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

6.4. REFERENCES TO OTHER SECTIONS

See Sections 8 and 13.

SECTION 7

HANDLING AND STORAGE

7.1. PRECAUTIONS FOR SAFE HANDLING

Avoid vapour from heated materials to prevent exposure to potentially toxic/irritating fumes. Hydrogen sulphide (H₂S) may be given off when this material is heated. Do not depend on sense of smell for warning. When heating to normal handling temperatures, avoid local overheating. Use only with adequate ventilation. Prevent small spills and leakage to avoid slip hazard.

Loading/Unloading Temperature: > 90°C (194°F)

Static Accumulator: This material is not a static accumulator.

7.2. CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Non-absorbent insulation such as foam glass is recommended for tankage and piping. Do not store in open or unlabelled containers.

Storage Temperature: < 190°C (374°F)

7.3. SPECIFIC END USES

Section 1 informs about identified end-uses. No industrial or sector specific guidance available.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. CONTROL PARAMETERS

EXPOSURE LIMIT VALUES

Exposure limits/standards (Note: Exposure limits are not additive)

Substance Name	Form	Limit/Standard			Note	Source
Asphalt	Fume.	STEL	10 mg/m3			UK EH40
Asphalt	Fume.	TWA	5 mg/m3			UK EH40
Asphalt [benzene solubles]	Fume, inhalable	TWA	0.5 mg/m3			ACGIH
Asphalt [benzene solubles]	Fume, inhalable	TWA	0.5 mg/m3			ACGIH
Asphalt	Fume.	STEL	10 mg/m3			UK EH40
Asphalt	Fume.	TWA	5 mg/m3			UK EH40
Asphalt [benzene solubles]	Fume, inhalable	TWA	0.5 mg/m3			ACGIH
Asphalt [benzene solubles]	Fume, inhalable	TWA	0.5 mg/m3			ACGIH
Hydrogen sulphide		STEL	14 mg/m3	10 ppm		Ireland OELs
Hydrogen sulphide		STEL	14 mg/m3	10 ppm		UK EH40
Hydrogen sulphide		TWA	7 mg/m3	5 ppm		Ireland OELs
Hydrogen sulphide		TWA	7 mg/m3	5 ppm		UK EH40
Hydrogen sulphide		STEL	14 mg/m3	10 ppm		ExxonMobil
Hydrogen sulphide		TWA	7 mg/m3	5 ppm		ExxonMobil
Hydrogen sulphide		STEL	5 ppm			ACGIH
Hydrogen sulphide		STEL	5 ppm			ACGIH
Hydrogen sulphide		TWA	1 ppm			ACGIH
Hydrogen sulphide		TWA	1 ppm			ACGIH

IE - Code of Practice for the Safety, Health and Welfare at Work (Chemical Agents) Regulations (2001-2015) and Safety, Health and Welfare at Work (Carcinogens) Regulations (2001-2019)

UK - EH40 Workplace Exposure Limits. Exposure limits for use with Control of Substances Hazardous to Health Regulations 2002 (as amended)

Exposure limits/standards for materials that can be formed when handling this product: For dusty conditions, ACGIH recommends for insoluble and poorly soluble particles not otherwise specified an 8-hour TWA of 10 mg/m³ (inhalable particles), 3 mg/m³ (respirable particles).

Note: Information about recommended monitoring procedures can be obtained from the relevant agency(ies)/institute(s):
 IE Health and Safety Executive (HSE)
 UK Health and Safety Executive (HSE)

DERIVED NO EFFECT LEVEL (DNEL)/DERIVED MINIMAL EFFECT LEVEL (DMEL)

Worker

Substance Name	Dermal	Inhalation
Asphalt	NA	2.9 mg/m ³ DNEL, Chronic Exposure, Local Effects
Asphalt, oxidised	NA	2.9 mg/m ³ DNEL, Chronic Exposure, Local Effects

Consumer

Substance Name	Dermal	Inhalation	Oral
Asphalt	NA	0.6 mg/m ³ DNEL, Chronic Exposure, Local Effects	NA
Asphalt, oxidised	NA	0.6 mg/m ³ DNEL, Chronic Exposure, Local Effects	NA

Note: The Derived No Effect Level (DNEL) is an estimated safe level of exposure that is derived from toxicity data in accord with specific guidance within the REACH regulation. The DNEL may differ from an Occupational Exposure Limit (OEL) for the same chemical. OELs may be recommended by an individual company, a governmental regulatory body or an expert organization, such as the Scientific Committee for Occupational Exposure Limits (SCOEL) or the American Conference of Governmental Industrial Hygienists (ACGIH). OELs are considered to be safe exposure levels for a typical worker in an occupational setting for an 8-hour work shift, 40 hour work week, as a time weighted average (TWA) or a 15 minute short-term exposure limit (STEL). While also considered to be protective of health, OELs are derived by a process different from that of REACH.

PREDICTED NO EFFECT CONCENTRATION (PNEC)

Substance Name	Aqua (fresh water)	Aqua (marine water)	Aqua (intermittent release)	Sewage treatment plant	Sediment	Soil	Oral (secondary poisoning)
Asphalt	NA	NA	NA	NA	NA	NA	NA
Asphalt, oxidised	NA	NA	NA	NA	NA	NA	NA

8.2. EXPOSURE CONTROLS



ENGINEERING CONTROLS

The level of protection and types of controls necessary will vary depending upon potential exposure conditions.

Control measures to consider:

No special requirements under ordinary conditions of use and with adequate ventilation.

PERSONAL PROTECTION

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

Respiratory Protection: If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include:

Positive-pressure, air-supplied respirator in areas where H₂S vapours may accumulate is recommended. European Committee for Standardization (CEN) standards EN 136, 140 and 405 provide respirator masks and EN 149 and 143 provide filter recommendations.

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapour warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

Hand Protection: Any specific glove information provided is based on published literature and glove manufacturer data. Glove suitability and breakthrough time will differ depending on the specific use conditions. Contact the glove manufacturer for specific advice on glove selection and breakthrough times for your use conditions. Inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include:

If product is hot, thermally protective, chemical resistant gloves are recommended. If contact with forearms is likely, wear gauntlet style gloves. CEN standards EN 420 and EN 374 provide general requirements and lists of glove types.

Eye Protection: If contact with material may occur, safety glasses and face shield are recommended.

Skin and Body Protection: Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include:

If product is hot, thermally protective, chemical resistant apron and long sleeves are recommended.

Specific Hygiene Measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

ENVIRONMENTAL CONTROLS

Comply with applicable environmental regulations limiting discharge to air, water and soil.

Protect the environment by applying appropriate control measures to prevent or limit emissions.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Note: Physical and chemical properties are provided for safety, health and environmental considerations only and may not fully represent product specifications. Contact the Supplier for additional information.

9.1. INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Solid
Colour: Black
Odour: Petroleum/Solvent
Odour Threshold: No data available **pH:**
Not technically feasible
Melting Point: Not technically feasible
Freezing Point: Not technically feasible
Initial Boiling Point / and Boiling Range: > 400°C (752°F) [Estimated]
Flash Point [Method]: >220°C (428°F) [EN/ISO 2592]
Evaporation Rate (n-butyl acetate = 1): Not technically feasible
Flammability (Solid, Gas): [test method unavailable]
Upper/Lower Flammable Limits (Approximate volume % in air): UEL: 5.0 LEL: 0.5 [Estimated]
Vapour Pressure: < 0.013 kPa (0.1 mm Hg) at 20 °C [Estimated]
Vapour Density (Air = 1): > 1 at 101 kPa [Estimated]
Relative Density (at 25 °C): 1 - 1.1 [test method unavailable]
Solubility(ies): water Negligible
Partition coefficient (n-Octanol/Water Partition Coefficient): > 6 [Estimated]
Autoignition Temperature: No data available
Decomposition Temperature: No data available
Viscosity: [N/A at 40°C] | 135 cSt (135 mm²/sec) at 135°C [test method unavailable] **Explosive Properties:** None
Oxidizing Properties: None

9.2. OTHER INFORMATION

None

SECTION 10 STABILITY AND REACTIVITY

10.1. REACTIVITY: See sub-sections below.

10.2. CHEMICAL STABILITY: Material is stable under normal conditions.

10.3. POSSIBILITY OF HAZARDOUS REACTIONS: Hazardous polymerization will not occur.

10.4. CONDITIONS TO AVOID: Contact of hot product with water. Overheating.

10.5. INCOMPATIBLE MATERIALS: Alkalies, Halogens, Strong Acids, Strong oxidisers



10.6. HAZARDOUS DECOMPOSITION PRODUCTS: Material does not decompose at ambient temperatures.

SECTION 11	TOXICOLOGICAL INFORMATION
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11.1. INFORMATION ON TOXICOLOGICAL EFFECTS

Hazard Class	Conclusion / Remarks
Inhalation	
Acute Toxicity: (Rat) 4 hour(s) LC50 > MAXCONC Test scores or other study results do not meet criteria for classification.	Minimally Toxic. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 403
Irritation: Data available.	Elevated temperatures or mechanical action may form vapours, mist, or fumes which may be irritating to the eyes, nose, throat, or lungs. Based on test data for structurally similar materials.
Ingestion	
Acute Toxicity (Rat): LD50 > 5000 mg/kg Test scores or other study results do not meet criteria for classification.	Minimally Toxic. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 401
Skin	
Acute Toxicity (Rabbit): LD50 > 5000 mg/kg Test scores or other study results do not meet criteria for classification.	Minimally Toxic. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 402
Skin Corrosion/Irritation: Data available. Test scores or other study results do not meet criteria for classification.	Negligible irritation to skin at ambient temperatures. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 404
Eye	
Serious Eye Damage/Irritation: Data available. Test scores or other study results do not meet criteria for classification.	May cause mild, short-lasting discomfort to eyes. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 405
Sensitisation	
Respiratory Sensitization: No end point data for material.	Not expected to be a respiratory sensitizer.
Skin Sensitization: Data available. Test scores or other study results do not meet criteria for classification.	Not expected to be a skin sensitizer. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 406
Aspiration: Data available.	Not expected to be an aspiration hazard. Based on physicochemical properties of the material.
Germ Cell Mutagenicity: Data available. Test scores or other study results do not meet criteria for classification.	Not expected to be a germ cell mutagen. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 471 474
Carcinogenicity: Data available. Test scores or other study results do not meet criteria for classification.	Not expected to cause cancer. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 451
Reproductive Toxicity: Data available.	Not expected to be a reproductive toxicant. Based on test data for



Test scores or other study results do not meet criteria for classification.	structurally similar materials. Test(s) equivalent or similar to OECD Guideline 422
Lactation: No end point data for material.	Not expected to cause harm to breast-fed children.
Specific Target Organ Toxicity (STOT)	
Single Exposure: No end point data for material.	Not expected to cause organ damage from a single exposure.
Repeated Exposure: Data available. Test scores or other study results do not meet criteria for classification.	Not expected to cause organ damage from prolonged or repeated exposure. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 410 412 413 422 451

OTHER INFORMATION

For the product itself:

Asphalt (bitumen): May contain low levels of polycyclic aromatic compounds (PACs), some of which are suspected of causing cancer under conditions of poor industrial hygiene and prolonged repeated contact. These PACs may also be inhaled. Inhalation studies at high concentrations of fumes resulted in bronchitis, pneumonitis, fibrosis and cell damage. Avoid contact with the asphalt emissions.

Contains:

HYDROGEN SULPHIDE: Chronic health effects due to repeated exposures to low levels of H2S have not been established. High level (700 ppm) acute exposure can result in sudden death. High concentrations will lead to cardiopulmonary arrest due to nervous system toxicity and pulmonary edema. Lower levels (150 ppm) may overwhelm sense of smell, eliminating warning of exposure. Symptoms of overexposure to H2S include headache, fatigue, insomnia, irritability, and gastrointestinal problems. Repeated exposures to approximately 25 ppm will irritate mucous membranes and the respiratory system and have been implicated in some eye damage. **EMISSIONS** (generated from heated bitumen product): According to The International Agency for Research on Cancer (IARC), certain specific occupational uses of bitumen products may result in carcinogenic hazards, as follows: (a) Occupational exposures to oxidized bitumens and their emissions during roofing are ‘probably carcinogenic to humans’ (Group 2A), (b) occupational exposures to hard bitumens and their emissions during mastic asphalt work are ‘possibly carcinogenic to humans’ (Group 2B), and (c) occupational exposures to straight-run bitumens and their emissions during road paving are ‘possibly carcinogenic to humans’ (Group 2B). These levels of hazard identified by IARC are associated with the specified occupational uses which require heating. Oxidized asphalts have been defined as having a Penetration Index (PI) of > 2.0.

SECTION 12	ECOLOGICAL INFORMATION
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The information given is based on data for the material, components of the material, or for similar materials, through the application of bridging principals.

12.1. TOXICITY

Material -- Not expected to be harmful to aquatic organisms.

12.2. PERSISTENCE AND DEGRADABILITY Biodegradation:

Material -- Expected to be persistent.

12.3. BIOACCUMULATIVE POTENTIAL

Material -- Has the potential to bioaccumulate, however metabolism or physical properties may reduce the bioconcentration or limit bioavailability.

12.4. MOBILITY IN SOIL

Majority of components -- Low water solubility, expected to sink and migrate into the sediment. Expected to partition to sediment and wastewater solids.

Material -- Low potential to migrate through soil.

12.5. PERSISTENCE, BIOACCUMULATION AND TOXICITY FOR SUBSTANCE(S)

Material does not meet the Reach Annex XIII criteria for PBT or vPvB.

12.6. OTHER ADVERSE EFFECTS

No adverse effects are expected.

SECTION 13 DISPOSAL CONSIDERATIONS

Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

13.1. WASTE TREATMENT METHODS

Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

European Waste Code: 05 01 17

NOTE: These codes are assigned based upon the most common uses for this material and may not reflect contaminants resulting from actual use. Waste producers need to assess the actual process used when generating the waste and its contaminants in order to assign the proper waste disposal code(s).

Empty Container Warning Empty Container Warning (where applicable): Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations. **DO NOT PRESSURISE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.**

SECTION 14 TRANSPORT INFORMATION

LAND (ADR/RID)

14.1. UN Number: 3257

14.2. UN Proper Shipping Name (Technical Name): ELEVATED TEMPERATURE LIQUID, N.O.S. (Bitumen)

14.3. Transport Hazard Class(es): 9

14.4. Packing Group: III

14.5. Environmental Hazards: None **14.6.**
Special Precautions for users:
Classification Code: M9
Label(s) / Mark(s): 9 (ET)
Hazard ID Number: 99
Hazchem EAC: 2Y

INLAND WATERWAYS (ADN)

14.1. UN (or ID) Number: 3257
14.2. UN Proper Shipping Name (Technical Name): ELEVATED TEMPERATURE LIQUID, N.O.S.
(Bitumen)
14.3. Transport Hazard Class(es): 9
14.4. Packing Group: III
14.5. Environmental Hazards: None **14.6.**
Special Precautions for users:
Hazard ID Number: 99
Label(s) / Mark(s): 9 (ET)

SEA (IMDG)

14.1. UN Number: 3257
14.2. UN Proper Shipping Name (Technical Name): ELEVATED TEMPERATURE LIQUID, N.O.S.
(Bitumen)
14.3. Transport Hazard Class(es): 9
14.4. Packing Group: III
14.6. Special Precautions for users:
Label(s): 9 (ET)
EMS Number: F-A, S-P
Transport Document Name: UN3257, ELEVATED TEMPERATURE LIQUID, N.O.S. (Bitumen), 9, PG III

SEA (MARPOL 73/78 Convention - Annex II):

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not classified according to Annex II

AIR (IATA)

14.1. UN Number:
14.2. UN Proper Shipping Name (Technical Name): NOT STANDARD PRACTICE
14.3. Transport Hazard Class(es): **14.4. Packing Group:** (N/A)
14.5. Environmental Hazards: None **14.6.**
Special Precautions for users:
Label(s) / Mark(s):
Transport Document Name: NOT STANDARD PRACTICE,

[Footnote: Product classified as UN 3257 is forbidden by air transport but the product may be transported by air if its temperature is less than 100 deg. C (212 deg. F). If the product is offered for transport at less than 100 deg. C (212 deg. F), the transport classification is Not Regulated.]

SECTION 15 REGULATORY INFORMATION

REGULATORY STATUS AND APPLICABLE LAWS AND REGULATIONS

Listed or exempt from listing/notification on the following chemical inventories : AIIC, DSL, ENCS, IECSC, KECI, PICCS, TSCA

15.1. SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE

Applicable EU Directives and Regulations:

1907/2006 [... on the Registration, Evaluation, Authorisation and Restriction of Chemicals ... and amendments thereto]
1272/2008 [on classification, labelling and packaging of substances and mixtures.. and amendments thereto]

REACH Restrictions on the manufacturing, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII):

The following entries of Annex XVII may be considered for this product: None

15.2. CHEMICAL SAFETY ASSESSMENT

REACH Information: A Chemical Safety Assessment has been carried out for one or more substances present in the material.

SECTION 16 OTHER INFORMATION

REFERENCES: Sources of information used in preparing this SDS included one or more of the following: results from in house or supplier toxicology studies, CONCAWE Product Dossiers, publications from other trade associations, such as the EU Hydrocarbon Solvents REACH Consortium, U.S. HPV Program Robust Summaries, the EU IUCLID Data Base, U.S. NTP publications, and other sources, as appropriate.

List of abbreviations and acronyms that could be (but not necessarily are) used in this safety data sheet:

Acronym	Full text
N/A	Not applicable
N/D	Not determined
NE	Not established
VOC	Volatile Organic Compound
AIIC	Australian Inventory of Industrial Chemicals
AIHA WEEL	American Industrial Hygiene Association Workplace Environmental Exposure Limits

ASTM	ASTM International, originally known as the American Society for Testing and Materials (ASTM)
DSL	Domestic Substance List (Canada)
EINECS	European Inventory of Existing Commercial Substances
ELINCS	European List of Notified Chemical Substances
ENCS	Existing and new Chemical Substances (Japanese inventory)
IECSC	Inventory of Existing Chemical Substances in China
KECI	Korean Existing Chemicals Inventory
NDSL	Non-Domestic Substances List (Canada)
NZIoC	New Zealand Inventory of Chemicals
PICCS	Philippine Inventory of Chemicals and Chemical Substances
TLV	Threshold Limit Value (American Conference of Governmental Industrial Hygienists)
TSCA	Toxic Substances Control Act (U.S. inventory)
UVCB	Substances of Unknown or Variable composition, Complex reaction products or Biological materials



LC	Lethal Concentration
LD	Lethal Dose
LL	Lethal Loading
EC	Effective Concentration
EL	Effective Loading
NOEC	No Observable Effect Concentration
NOELR	No Observable Effect Loading Rate

THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:

No revision information

Notes:

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

This product is not classified for human health and environmental hazards, and an exposure scenario is not required. This SDS conveys the appropriate risk management measures.

ANNEX