SAFETY DATA SHEET

(REACH regulation (EC) n° 1907/2006 - n° 2015/830)

SECTION 1 : IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name : LEOTAK WINTER GRADE

1.2. Relevant identified uses of the substance or mixture and uses advised against

Hydrocarbon binder used for road building and maintenance.

1.3. Details of the supplier of the safety data sheet

Registered company name : COLAS LIMITED
Address : Wallage Lane Rowfant Crawley, West Sussex RH10 4NF UK
Telephone : + 44 1342711000 Fax : +44 1342 711199
info@colas.co.uk
http://www.colas.co.uk

1.4. Emergency telephone number : + 44 1342718346

Association/Organisation :

SECTION 2 : HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

In compliance with EC regulation No. 1272/2008 and its amendments.

Carcinogenicity, Category 2 (Carc. 2, H351).
This mixture does not present a physical hazard. Refer to the recommendations regarding the other products present on the site.
This mixture does not present an environmental hazard. No known or foreseeable environmental damage under standard conditions of use.

2.2. Label elements

In compliance with EC regulation No. 1272/2008 and its amendments.

Hazard pictograms :

GHS08
Signal Word :
WARNING
Product identifiers :
649-224-00-6 FUELS, DIESEL GASOIL-UNSPECIFIED [A COMPLEX COMBINATION OF HYDROCARBONS PRODUCED BY THE DISTILLATION OF CRUDE OIL. IT CONSISTS OF HYDROCARBONS HAVING CARBON NUMBERS PREDOMINANTLYIN THE RANGE OF C9 THROUGH C20 AND BOILING IN THE RANGE OF APPROXIMATELY 163
Additional labeling :
Hazard statements :

H351	Suspected of causing cancer .
Precautionary statements - Prevention :	
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
Precautionary statements - Response :	
P308 + P313	IF exposed or concerned: Get medical advice/attention.
Precautionary statements - Storage :	
P405	Store locked up.
Precautionary statements - Disposal :	
P501	Dispose of contents/container to an approved wasre disposal plant.

2.3. Other hazards

The mixture does not contain substances classified as 'Substances of Very High Concern' (SVHC) >= 0.1% published by the European CHemicals Agency (ECHA) under article 57 of REACH: http://echa.europa.eu/fr/candidate-list-table

The mixture fulfils neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006.

Specific hazard :

- burns, splashing, inhalation, irritant dermal action

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

Composition :

Identification	(EC) 1272/2008	Note	%
CAS: 8052-42-4 EC: 232-490-9 REACH: 01-2119480172-44 BITUME		[1]	25 <= x % < 50
INDEX: 649-224-00-6 CAS: 68334-30-5 EC: 269-822-7 FUELS, DIESEL GASOIL-UNSPECIFIED [A COMPLEX COMBINATION OF HYDROCARBONS PRODUCED BY THE DISTILLATION OF CRUDE OIL. IT CONSISTS OF HYDROCARBONS HAVING CARBON NUMBERS PREDOMINANTLYIN THE RANGE OF C9 THROUGH C20 AND BOILING IN THE RANGE OF APPROXIMATELY 163	GHS08 Wng Carc. 2, H351	[1] [2]	1 <= x % < 2.5
CAS: 8008-20-6 EC: 232-366-4 KEROSINE (PETROLEUM)	GHS07, GHS08 Dgr Asp. Tox. 1, H304 Skin Irrit. 2, H315 Aquatic Chronic 3, H412	[1]	0 <= x % < 1

Information on ingredients :

[1] Substance for which maximum workplace exposure limits are available.

[2] Carcinogenic, mutagenic or reprotoxic (CMR) substance.

Other data :

Chemical nature

Cationic aqueous emulsion of bituminous binder

The continuous phase is made of bitumen. The phase separation obtained during use or occuring unintentionally is called breaking

SECTION 4 : FIRST AID MEASURES

As a general rule, in case of doubt or if symptoms persist, always call a doctor.

NEVER induce swallowing by an unconscious person.

4.1. Description of first aid measures

In the event of exposure by inhalation :

In case of exposition to important vapors, fumes or aerosols concentration, bring the personn to fresh air.

In the event of splashes or contact with eyes :

Wash thoroughly with fresh, clean water for 15 minutes holding the eyelids open.

Wash immediately in copious amounts of water, keeping eyelids apart for at least 15 minutes and consult a specialist.

In case of contact with the hot product, COOL THE EYE IMMEDIATELY AND COPIOUSLY WITH COLD WATER for 10 minutes, keeping the eye open if possible. Take the person to a specialised medical centre.

In the event of splashes or contact with skin :

In case of burns :

Apply immediately and copiously cold water for at least 20 minutes

Never remove the product adhering to the skin.

Immediately transport to hospital.

In the event of swallowing :

In the event of swallowing, if the quantity is small (no more than one mouthful), rinse the mouth with water and consult a doctor.
Keep the person exposed at rest. Do not force vomiting.
Seek medical attention, showing the label.
If swallowed accidentally, call a doctor to ascertain whether observation and hospital care will be necessary. Show the label.
Rinse out one's mouth with milk or water to relieve affected area. Do not induce vomiting to avoid any heartburn.
Transport to a specialized hospital immediately for emergency care.

4.2. Most important symptoms and effects, both acute and delayed

No data available.

4.3. Indication of any immediate medical attention and special treatment needed

No data available.

SECTION 5 : FIREFIGHTING MEASURES

Bituminous emulsions are non-flammable products.

5.1. Extinguishing media

Suitable methods of extinction

Cool containers with water spray.

Unsuitable methods of extinction

In the event of a fire, do not use :
- water jet

5.2. Special hazards arising from the substance or mixture

A fire will often produce a thick black smoke. Exposure to decomposition products may be hazardous to health.
Do not breathe in smoke.
In the event of a fire, the following may be formed :
- carbon monoxide (CO)
- carbon dioxide (CO_2)

5.3. Advice for firefighters

No data available.

SECTION 6 : ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Consult the safety measures listed under headings 7 and 8.

For first aid worker

First aid workers will be equipped with suitable personal protective equipment (See section 8).

6.2. Environmental precautions

Contain and control the leaks or spills with non-combustible absorbent materials such as sand, earth, vermiculite, diatomaceous earth in drums for waste disposal.
Prevent any material from entering drains or waterways.

6.3. Methods and material for containment and cleaning up

- recovery : contain and collect the spilled product, sand the surfaces concerned if necessary.
- elimination : recover all wastes and dispose in compliance with current regulations.

6.4. Reference to other sections

No data available.

SECTION 7 : HANDLING AND STORAGE

Requirements relating to storage premises apply to all facilities where the mixture is handled.

7.1. Precautions for safe handling

Always wash hands after handling.
Remove and wash contaminated clothing before re-using.
Ensure that there is adequate ventilation, especially in confined areas.
Engineering / preventive measures
- Workers exposure :
- if the product is sprayed with a hose, it is recommended to wear protective mask and clothes.

- Wear the protective equipements given in §8 before handling the product.
Reduce the risk of accidents by arranging machinery and equipment so as to prevent the hot product from spilling or leaking.

Fire prevention :

Handle in well-ventilated areas.
Prevent access by unauthorised personnel.
- never use solvant to help the process in case of blockage.
- never weld or cut if tanks or pipes are still containing gases.
In general, do not use an open flame in the proximity of hot bitumen without taking all necessary precautions.

Recommended equipment and procedures :

For personal protection, see section 8.
Observe precautions stated on label and also industrial safety regulations.
Avoid exposure - obtain special instructions before use.
Packages which have been opened must be reclosed carefully and stored in an upright position.
Precautions :
- avoid breathing vapors.
- do not eat, drink and smoke when the product is moved or used.
During product transfert :
- always transfer the product by drawing up. Never reverse in a flexible tubing to avoid any bursting.
- never decante with a flexible tubing through a manhole or unsuitable mouth.
- do not use free-fall or spray methods when filling containers to prevent foaming.
- do not fill the emulsion into any containers holding a product whose temperature exceeds 100°C.
ADVICES :
- Use only containers, pipes and joints resistant to hot bitumen and hydrocarbons.

Prohibited equipment and procedures :

No smoking, eating or drinking in areas where the mixture is used.

7.2. Conditions for safe storage, including any incompatibilities

No data available.

Storage

Keep the container tightly closed in a dry, well-ventilated place.
The floor must be impermeable and form a collecting basin so that, in the event of an accidental spillage, the liquid cannot spread beyond this area.
Tanks and facilities must comply with applicable regulations.
Avoid the use of any pumping devices likely to destabilise the emulsion.
- to be avoided : storage temperatures below 5°C or above 90°C.
NEVER heat a reservoir or tank if the heating elements are not adequately immersed (minimum 15 cm).
If the storage time exceeds 15 days, moderately mix the emulsion.
Do not heat the pumps or pipes using an open flame.
- The heating elements should have a surface power below 1 W/cm2.

Packaging

Always keep in packaging made of an identical material to the original.
Suitable packaging materials :
Recommended : Steel, plastic
- for lab, use plastic or glass containers
Unsuitable packaging materials :
Avoid copper or aluminium alloys.

7.3. Specific end use(s)

No data available.

SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Occupational exposure limits :

- ACGIH TLV (American Conference of Governmental Industrial Hygienists, Threshold Limit Values, 2010) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
8052-42-4	0,5 (I) mg/m3			A4; BEIP	
68334-30-5	100 (IFV) mg/m3			Skin; A3	
8008-20-6	200 (P) mg/m3			Skin; A3	

- UK / WEL (Workplace exposure limits, EH40/2005, 2007) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
8052-42-4	5 mg/m3	10 mg/m3			

- USA / NIOSH REL (National Institute for Occupational Safety and Health, Recommended exposure limits) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
8052-42-4	-	-	5 mg/m3	C-15 min mg/m3	-
8008-20-6	100 mg/m3	-	-	-	-

8.2. Exposure controls

Personal protection measures, such as personal protective equipment

Pictogram(s) indicating the obligation of wearing personal protective equipment (PPE) :

Use personal protective equipment that is clean and has been properly maintained.

Store personal protective equipment in a clean place, away from the work area.

Never eat, drink or smoke during use. Remove and wash contaminated clothing before re-using. Ensure that there is adequate ventilation, especially in confined areas.

- Eye / face protection

Avoid contact with eyes.

Use eye protectors designed to protect against liquid splashes

Before handling, wear safety goggles in accordance with standard EN166.

- Hand protection

Wear suitable protective gloves in the event of prolonged or repeated skin contact.

Use suitable protective gloves that are resistant to chemical agents in accordance with standard EN374.

Gloves must be selected according to the application and duration of use at the workstation.

Protective gloves need to be selected according to their suitability for the workstation in question : other chemical products that may be handled, necessary physical protections (cutting, pricking, heat protection), level of dexterity required.

Type of gloves recommended :

- Natural latex
- Nitrile rubber (butadiene-acrylonitrile copolymer rubber (NBR))
- PVC (polyvinyl chloride)
- PVA (Polyvinyl alcohol)
- Butyl Rubber (Isobutylene-isoprene copolymer)

Recommended properties :

- Impervious gloves in accordance with standard EN374

- Body protection

Work clothing worn by personnel shall be laundered regularly.

After contact with the product, all parts of the body that have been soiled must be washed.

SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

General information :

Physical state :	Viscous liquid.

Important health, safety and environmental information

pH :	Not stated. Slightly acidic.
Boiling point/boiling range :	Not relevant.
Flash point interval :	Not relevant.
Vapour pressure (50°C) :	Not relevant.
Density :	= 1
Water solubility :	Dilutable.
Melting point/melting range :	0 °C.
Self-ignition temperature :	Not relevant.
Decomposition point/decomposition range :	Not relevant.

9.2. Other information

This safety datasheet only contains information relating to safety and does not replace any product information or product specification.
Aspect :
- physical state : more or less viscous liquid depending on the temperature and the grade
- colour : black or brownish-black
- odour : characteristics

Physicochemical features
- pH : 2.0 to 3.0

Specific temperatures
- boiling : 100°C
- solidification : < 0°C

Explosivity : not applicable
Density : 1000+/- 5 kg/m3 @25°C
Solubility in water : dilutable

SECTION 10 : STABILITY AND REACTIVITY

limited stability at usual storage, handling and use temperatures

10.1. Reactivity

No data available.

10.2. Chemical stability

This mixture is stable under the recommended handling and storage conditions in section 7.

10.3. Possibility of hazardous reactions

When exposed to high temperatures, the mixture can release hazardous decomposition products, such as carbon monoxide and dioxide, fumes and nitrogen oxide.

10.4. Conditions to avoid

Avoid :
- frost

Emulsion stability is limited. If emulsion has been stored for more than a few days, it should be circulated before use.

10.5. Incompatible materials

Products likely to destabilise the emulsion. Avoid all alkalis.

10.6. Hazardous decomposition products

The thermal decomposition may release/form :
- carbon monoxide (CO)
- carbon dioxide (CO2)

SECTION 11 : TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Splashes in the eyes may cause irritation and reversible damage

Suspected human carcinogen.

11.1.1. Substances

Acute toxicity :

BITUMEN (CAS: 8052-42-4)

Oral route :	LD50 > 5000 mg/kg OECD Guideline 401 (Acute Oral Toxicity) Species : Rat (recommended by the CLP)
Dermal route :	LD50 > 2000 mg/kg OECD Guideline 402 (Acute Dermal Toxicity) Species : Rabbit (recommended by the CLP)
Inhalation route (n/a) :	LC50 > 94.4 OECD Guideline 403 (Acute Inhalation Toxicity) Species : Rat (recommended by the CLP)

Carcinogenicity :

BITUMEN (CAS: 8052-42-4)

Carcinogenicity Test :	Negative. No carcinogenic effect.

Reproductive toxicant :

BITUMEN (CAS: 8052-42-4)

Study on development :	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test) Species : Rat

Specific target organ systemic toxicity - repeated exposure :

BITUMEN (CAS: 8052-42-4)

Dermal route :	Duration of exposure : 28 days C = 200 mg/kg bodyweight/jour OECD Guideline 410 (Repeated Dose Dermal Toxicity: 21/28-Day Study) Species : Rabbit (recommanded by CLP)
Inhalation route :	Duration of exposure : 90 days C = 103,9 Species : Rat (recommanded by CLP)

11.1.2. Mixture

No toxicological data available for the mixture.

SECTION 12 : ECOLOGICAL INFORMATION

12.1. Toxicity

12.1.2. Mixtures

No aquatic toxicity data available for the mixture.

12.2. Persistence and degradability

The emulsion is a product used for construction and the binder, after breaking, has a long life span.

12.3. Bioaccumulative potential

No data available on cationic emulsions. Bioaccumulation of binder compounds is very unlikely because of insolubility and high molecular weigth.

12.4. Mobility in soil

The product has no soil mobility.

Water : as the emulsion is dilutable and mobile in water, the binder could be conveyed on long distances.

12.5. Results of PBT and vPvB assessment

No data available.

12.6. Other adverse effects

No data available.

SECTION 13 : DISPOSAL CONSIDERATIONS

Proper waste management of the mixture and/or its container must be determined in accordance with Directive 2008/98/EC.

13.1. Waste treatment methods

Do not pour into drains or waterways.

Waste :

Waste management is carried out without endangering human health, without harming the environment and, in particular without risk to water, air, soil, plants or animals.

Recycle or dispose of waste in compliance with current legislation, preferably via a certified collector or company.

Do not contaminate the ground or water with waste, do not dispose of waste into the environment.

Soiled packaging :

Empty container completely. Keep label(s) on container.

Give to a certified disposal contractor.

SECTION 14 : TRANSPORT INFORMATION

Exempt from transport classification and labelling.

14.1. UN number

-

14.2. UN proper shipping name

-

14.3. Transport hazard class(es)

-

14.4. Packing group

-

14.5. Environmental hazards

-

14.6. Special precautions for user

-

SECTION 15 : REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

- Classification and labelling information included in section 2:

The following regulations have been used:

- EU Regulation No. 1272/2008 amended by EU Regulation No. 2016/1179. (ATP 9)

- Container information:

No data available.

- Particular provisions :

No data available.

15.2. Chemical safety assessment

No data available.

SECTION 16 : OTHER INFORMATION

Since the user's working conditions are not known by us, the information supplied on this safety data sheet is based on our current level of knowledge and on national and community regulations.

The mixture must not be used for other uses than those specified in section 1 without having first obtained written handling instructions.

It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations.

The information in this safety data sheet must be regarded as a description of the safety requirements relating to the mixture and not as a guarantee of the properties thereof.

Wording of the phrases mentioned in section 3 :

H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H351	Suspected of causing cancer .
H412	Harmful to aquatic life with long lasting effects.

Abbreviations :

CMR: Carcinogenic, mutagenic or reprotoxic.
ADR : European agreement concerning the international carriage of dangerous goods by Road.
IMDG : International Maritime Dangerous Goods.
IATA : International Air Transport Association.
ICAO : International Civil Aviation Organisation
RID : Regulations concerning the International carriage of Dangerous goods by rail.
GHS08 : Health hazard
PBT: Persistent, bioaccumulable and toxic.
vPvB : Very persistent, very bioaccumulable.
SVHC : Substances of very high concern.