



SAFETY DATA SHEET

(REACH regulation (EC) n° 1907/2006 - n° 2020/878)

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

1.1. Product identifier

Product name : RS BITUKOLD

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 : Unit 6210 Bishops Court, Solihull Parkway, Birmingham, West Midlands B37 7YB Birmingham UK

Telephone : + 44 333 5773577

info@colas.co.uk

http://www.colas.co.uk

1.4. Emergency telephone number : + 44 1865407333

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.

May produce an allergic reaction (EUH208).

Specific target organ toxicity (repeated exposure), Category 2 (STOT RE 2, H373).

Hazardous to the aquatic environment - Chronic hazard, Category 3 (Aquatic Chronic 3, H412).

This mixture does not present a physical hazard. Refer to the recommendations regarding the other products present on the site.

2.2. Label elements

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

Hazard pictograms :



GHS08

Signal Word :

WARNING

Additional labeling :

EUH208

Contains AMIDES, C18-UNSATD., N-[3-(DIMETHYLAMINE) PROPYL]. May produce an allergic reaction.

EUH208

Contains FATTY ACIDS, C18 UNSAT, REACTION PRODUCTS WITH DIETHYLENETRIAMINE. May produce an allergic reaction.

Hazard statements :

H373

May cause damage to organs through prolonged or repeated exposure .

H412

Harmful to aquatic life with long lasting effects.

Precautionary statements - Prevention :

P260

Do not breathe dust/fume/gas/mist/vapours/spray.

P273

Avoid release to the environment.

Precautionary statements - Response :

P314

Get medical advice/attention if you feel unwell.

Precautionary statements - Disposal :

P501

Dispose of contents/container to an approved waste disposal plant.

2.3. Other hazards

The mixture does not contain substances classified as 'Substances of Very High Concern' (SVHC) \geq 0.1% published by the European Chemicals Agency (ECHA) under article 59 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.

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The mixture does not contain substances > = 0.1% with endocrine disrupting properties in accordance with the criteria of the Delegated Regulation (EU) 2017/2100 of the Commission or Regulation (EU) 2018/605 of the Commission.

Specific hazard :

- burns, splashing, inhalation, irritant dermal action

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

Composition :

Identification	Classification (EC) 1272/2008	Note	%
CAS: 8052-42-4 EC: 232-490-9 REACH: 01-2119480172-44 BITUME		[i]	50 <= x % < 100
EC: 919-446-0 REACH: 01-2119458049-33 HYDROCARBONS, C9-C12, N-ALKANES, ISOALKANES, CYCLICS, AROMATICS (2-25%)	GHS09, GHS07, GHS08, GHS02 Dgr Flam. Liq. 3, H226 Asp. Tox. 1, H304 STOT SE 3, H336 STOT RE 1, H372 Aquatic Chronic 2, H411		1 <= x % < 2.5
CAS: 800-353-8 EC: 1379524-06-7 REACH: 01-2119971276-30 AMIDES, C18-UNSATD., N-[3-(DIMETHYLAMINE) PROPYL]	GHS05, GHS09, GHS07 Dgr Skin Corr. 1B, H314 Skin Sens. 1, H317 Aquatic Acute 1, H400 M Acute = 1 Aquatic Chronic 1, H410 M Chronic = 1		0 <= x % < 1
CAS: 1226892-43-8 EC: 629-715-1 REACH: 01-2119487013-43-0008 FATTY ACIDS, C18 UNSAT, REACTION PRODUCTS WITH DIETHYLENTRIAMINE	GHS05, GHS09, GHS07 Dgr Skin Corr. 1B, H314 Skin Sens. 1, H317 Aquatic Chronic 1, H410 M Chronic = 1		0 <= x % < 1
INDEX: 603-140-00-6 CAS: 111-46-6 EC: 203-872-2 2,2' -OXYBISETHANOL	GHS07 Wng Acute Tox. 4, H302	[i]	0 <= x % < 1

Information on ingredients :

(Full text of H-phrases: see section 16)

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

Other data :

Chemical nature

Cationic aqueous emulsion of bituminous binder

The continuous phase is made of bitumen. The phase separation obtained during use or occurring 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 the event of an allergic reaction, seek medical attention.

Immediately remove to fresh air. If breathing difficulties are experienced, seek medical attention. If breathing has stopped, commence artificial resuscitation and seek medical attention immediately.

In the event of splashes or contact with eyes :

Wash immediately with 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 WITH COPIOUS AMOUNTS OF COLD WATER for 10 minutes, keeping the eye open if possible. Take the person to a specialised medical centre.

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In the event of splashes or contact with skin :

In the event of an allergic reaction, seek medical attention.

In case of burns :

Apply immediately copious amounts of cold water for at least 20 minutes

Never remove the product adhering to the skin.

Immediately go to hospital.

In the event of swallowing :

Seek medical attention, showing the label.

Rinse out one's mouth with milk or water to relieve affected area. Do not induce vomiting to avoid any heartburn.

Go 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.

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 (CO₂)

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.

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 equipment given in §8 before handling the product.

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Reduce the risk of accidents by arranging machinery and equipment so as to prevent the hot product from spilling or leaking.

Fire prevention :

Prevent access by unauthorised personnel.

- never use solvent to free 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.

Precautions :

- avoid breathing vapours.
- do not eat, drink and smoke when the product is moved or used.

During product transfer :

- always transfer the product under suction. Never reverse in a flexible tubing to avoid any bursting.
- do not transfer with a flexible hose through an opening, not provided for the purpose
- do not fill from height or use spray methods when filling containers to prevent foaming.
- do not fill the emulsion into any containers holding a product whose temperature exceeds 100°C.

ADVICE :

- 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

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 over top).

If the storage time exceeds 15 days, mix the emulsion moderately.

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

No data available.

Occupational exposure limits :

- UK / WEL (Workplace exposure limits, EH40/2005, Fourth Edition 2020) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
8052-42-4	5 mg/m ³	10 mg/m ³			
111-46-6	23 ppm 101 mg/m ³				

8.2. Exposure controls

Personal protection measures, such as personal protective equipment

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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

Use suitable protective gloves that are resistant to chemical agents in accordance with standard EN ISO 374-1.

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)
- Butyl Rubber (Isobutylene-isoprene copolymer)

- 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

Physical state

Physical state : Viscous liquid.

Colour

brown or black

Odour

Odour threshold : Not stated.
characteristic

Melting point

Melting point/melting range : 0 °C.

Freezing point

Freezing point / Freezing range : Not stated.

Boiling point or initial boiling point and boiling range

Boiling point/boiling range : Not relevant.

Flammability

Flammability (solid, gas) : Not stated.

Lower and upper explosion limit

Explosive properties, lower explosivity limit (%) : Not stated.

Explosive properties, upper explosivity limit (%) : Not stated.

Flash point

Flash point interval : Not relevant.

Auto-ignition temperature

Self-ignition temperature : Not relevant.

Decomposition temperature

Decomposition point/decomposition range : Not relevant.

pH

pH (aqueous solution) : Not stated.

pH : Not stated.

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pH acid (1.5 to 5) : Strongly acidic.

Kinematic viscosity

Viscosity : Not stated.

Solubility

Water solubility : Dilutable.
Fat solubility : Not stated.

Partition coefficient n-octanol/water (log value)

Partition coefficient: n-octanol/water : Not stated.

Vapour pressure

Vapour pressure (50°C) : Not relevant.

Density and/or relative density

Density : = 1
Density 1.000 +/- 0.005 @ 25°C

Relative vapour density

Vapour density : Not stated.

Particle characteristics

The mixture does not contain nanoforms.

9.2. Other information

No data available.

9.2.1. Information with regard to physical hazard classes

No data available.

9.2.2. Other safety characteristics

This safety datasheet only contains information relating to safety and does not replace any product information or product specification.

SECTION 10 : STABILITY AND REACTIVITY

limited stability at usual temperatures of storage, handling and use

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

No data available.

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 hazard classes as defined in Regulation (EC) No 1272/2008

May cause severe damage to organs in the event of repeated or prolonged exposure.

11.1.1. Substances

Acute toxicity :

FATTY ACIDS, C18 UNSAT, REACTION PRODUCTS WITH DIETHYLENETRIAMINE (CAS: 1226892-43-8)
Oral route : LD50 > 2000 mg/kg bodyweight/day
Species : Rat

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OECD Guideline 423 (Acute Oral toxicity/Acute Toxic Class Method)

BITUME (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 bodyweight/day
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)

Skin corrosion/skin irritation :

FATTY ACIDS, C18 UNSAT, REACTION PRODUCTS WITH DIETHYLENETRIAMINE (CAS: 1226892-43-8)

Species : Rabbit
OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Species : Rabbit
Duration of exposure : 72 h
OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Respiratory or skin sensitisation :

FATTY ACIDS, C18 UNSAT, REACTION PRODUCTS WITH DIETHYLENETRIAMINE (CAS: 1226892-43-8)

Species : Guinea pig
OECD Guideline 406 (Skin Sensitisation)

Germ cell mutagenicity :

FATTY ACIDS, C18 UNSAT, REACTION PRODUCTS WITH DIETHYLENETRIAMINE (CAS: 1226892-43-8)

No mutagenic effect.

Mutagenesis (in vitro) :

Negative.
Species : Bacteria
OECD Guideline 471 (Bacterial Reverse Mutation Assay)

Carcinogenicity :

BITUME (CAS: 8052-42-4)

Carcinogenicity Test :

Negative.
No carcinogenic effect.

Reproductive toxicant :

FATTY ACIDS, C18 UNSAT, REACTION PRODUCTS WITH DIETHYLENETRIAMINE (CAS: 1226892-43-8)

No toxic effect for reproduction

Study on development :

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

BITUME (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 :

BITUME (CAS: 8052-42-4)

Dermal route :

Duration of exposure : 28 days
C = 200 mg/kg bodyweight/day
OECD Guideline 410 (Repeated Dose Dermal Toxicity: 21/28-Day Study)
Species : Rabbit (recommended by CLP)

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Inhalation route :

Duration of exposure : 90 days
C = 103.9
Species : Rat (recommended by CLP)

11.1.2. Mixture

Respiratory or skin sensitisation :

Contains at least one sensitising substance. May cause an allergic reaction.

11.2. Information on other hazards

Endocrine disrupting properties

The mixture does not contain any substance evaluated as an endocrine disruptor with effects on human health.

Monograph(s) from the IARC (International Agency for Research on Cancer) :

CAS 8052-42-4 : IARC Group 2B : The agent is possibly carcinogenic to humans.

SECTION 12 : ECOLOGICAL INFORMATION

Harmful to aquatic life with long lasting effects.

The product must not be allowed to run into drains or waterways.

12.1. Toxicity

12.1.1. Substances

FATTY ACIDS, C18 UNSAT, REACTION PRODUCTS WITH DIETHYLENETRIAMINE (CAS: 1226892-43-8)

Fish toxicity : LC50 = 0.19 mg/l
Species : Danio rerio

Crustacean toxicity : EC50 = 0.18 mg/l
Species : Daphnia magna

Algae toxicity : ECr50 = 0.477 mg/l
Duration of exposure : 72 h

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.

12.2.1. Substances

FATTY ACIDS, C18 UNSAT, REACTION PRODUCTS WITH DIETHYLENETRIAMINE (CAS: 1226892-43-8)

Biodegradability : no degradability data is available, the substance is considered as not degrading quickly.

12.3. Bioaccumulative potential

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

12.3.1. Substances

FATTY ACIDS, C18 UNSAT, REACTION PRODUCTS WITH DIETHYLENETRIAMINE (CAS: 1226892-43-8)

Bioaccumulation : BCF = 257

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. Endocrine disrupting properties

The mixture does not contain any substance evaluated as an endocrine disruptor with environmental effects.

12.7. 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, 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 or ID 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

-

14.7. Maritime transport in bulk according to IMO instruments

-

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. 2023/707.
- EU Regulation No. 1272/2008 amended by EU Regulation No. 2024/197. (ATP 21)

Container information:

No data available.

Restrictions applied under Title VIII of Regulation (EC) No. 1907/2006 (REACH):

The mixture does not contain any substance restricted under Annex XVII of Regulation (EC) No. 1907/2006 (REACH):
<https://echa.europa.eu/substances-restricted-under-reach>.

Explosives precursors :

The mixture does not contain any substance subject to Regulation (EU) 2019/1148 on the marketing and use of explosives precursors.

Particular provisions :

No data available.

15.2. Chemical safety assessment

A Chemical Safety Assessment is not required for this preparation.

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 :

H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H336	May cause drowsiness or dizziness.
H372	Causes damage to organs through prolonged or repeated exposure .
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

Abbreviations and acronyms :

LD50 : The dose of a test substance resulting in 50% lethality in a given time period.
LC50 : The concentration of a test substance resulting in 50% lethality in a given period.
EC50 : The effective concentration of substance that causes 50% of the maximum response.
ECr50 : The effective concentration of substance that causes 50% reduction in growth rate.
REACH : Registration, Evaluation, Authorization and Restriction of Chemical Substances.
STEL : Short-term exposure limit
TWA : Time Weighted Averages
TLV : Threshold Limit Value (exposure)
AEV : Average Exposure Value.
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.