



UNITED KINGDOM

Health & Safety Data for:

BITUKOLD RS

Data Sheet No. 93

Revision: 25/05/2017

Replaces: 18/10/2016

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 : BITUKOLD RS

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.

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

Product identifiers :

EC 919-446-0 HYDROCARBONS, C9-C12, N-ALKANES, ISOALKANES, CYCLICS, AROMATICS (2-25%)

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.

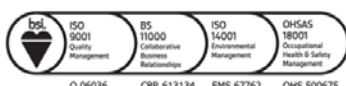
Precautionary statements - Response :

P314 Get medical advice/attention if you feel unwell.

Precautionary statements - Disposal :

P501 Dispose of contents/container to a collection centre for hazardous or special waste.

A member of



Part of the International Colas Group

Registered Office: Rowfant, Crawley, West Sussex RH10 4NF Registered in England: 2644726

National Sales Office, Products Division
 Loushers Lane, Wilderspool, Warrington,
 Cheshire WA4 6RZ Tel: 01925 632616

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 57 of REACH: <http://echa.europa.eu/fr/candidate-list-table>

The mixture satisfies neither the PBT nor the vPvB criteria for mixtures in accordance with annex 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	%
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 \leq 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 \leq 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 Acute 1, H400 M Acute = 1 Aquatic Chronic 1, H410 M Chronic = 1		0 \leq x % < 1

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.

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

In the event of splashes or contact with eyes :

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 the event of an allergic reaction, seek medical attention.

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 :

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.

Transport to a specialized hospital immediately for emergency care.

A member of



Gold

Part of the International Colas Group

Registered Office: Rowfant, Crawley, West Sussex RH10 4NF Registered in England: 2644726

National Sales Office, Products Division
Loushers Lane, Wilderspool, Warrington,
Cheshire WA4 6RZ Tel: 01925 632616

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 equipments 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 :

Prevent access by unauthorised personnel.

- never use solvent 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.

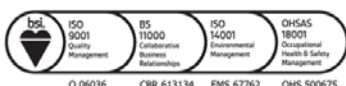
Recommended equipment and procedures :

For personal protection, see section 8.

Observe precautions stated on label and also industrial safety regulations.

Avoid exposure - obtain special instructions before use.

A member of



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

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**

No data available.

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

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.

A member of



INVESTORS IN PEOPLE | Gold

Type of gloves recommended :

- Natural latex
- Nitrile rubber (butadiene-acrylonitrile copolymer rubber (NBR))
- PVC (polyvinyl chloride)
- 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.

- Respiratory protection

Anti-gas and vapour filter(s) (Combined filters) in accordance with standard EN14387 :

- A3 (Brown)

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.
Strongly 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 : acid (1.5 to 5)

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

No data available.

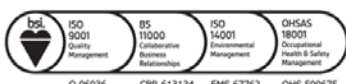
10.4. Conditions to avoid

Avoid :

- frost

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

A member of



INVESTORS IN PEOPLE | Gold

Part of the International Colas Group

Registered Office: Rowfant, Crawley, West Sussex RH10 4NF Registered in England: 2644726

National Sales Office, Products Division
Loushers Lane, Wilderspool, Warrington,
Cheshire WA4 6RZ Tel: 01925 632616

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**

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

11.1.1. Substances

No toxicological data available for the substances.

11.1.2. Mixture**Respiratory or skin sensitisation :**

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

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**12.1.2. 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 weight.

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

—

A member of



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

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.
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 :

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.

- Made under licence of European Label System® MSDS software from InfoDyne - <http://www.infodyne.fr> -