

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING

Product Identification Number: REVIVE-A-DRIVE 2812

Use: Bitumen based emulsion used as a sealant and adhesive.

Company Identification:

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2. HAZARDS IDENTIFICATION

Preparation classified according to 1999/45/EC:

Not classified as dangerous under EC criteria.

Not expected to be a health hazard to humans at ambient temperature. Hydrogen sulphide (H₂S), an extremely flammable and toxic gas, and other hazardous vapours may evolve and collect in the headspace of storage tanks, transport vessels and other enclosed containers. Hydrogen sulphide is highly toxic and may be fatal if inhaled. May dull the sense of smell, so do not rely on odour as an indication of hazard. Contact with hot material can cause thermal burns which may result in permanent skin damage. Hot product may cause severe eye burns and/or blindness.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	EINECS No.	REACH No.	%	Classification
Bitumen ¹	@928-294-4	-	>40	Not classified.

See Section 15 for the full text of the R Phrases declared above, if applicable. Where substances listed are "Not classified" the reason for listing is...

PBT (Persistent, Bioaccumulative and Toxic) Substance:	No
vPvB (Very Persistent Very Bioaccumulative) Substance:	Yes – vP Substance ¹
Substance with a Community workplace exposure limit:	Yes – Substance ¹

4. FIRST-AID MEASURES

General Information:

DO NOT DELAY. Keep victim calm. Obtain medical treatment immediately.

Inhalation:

Unlikely to pose any hazard. Remove affected person to fresh air. Obtain medical treatment if symptoms persist.

Skin Contact:

If contact with hot product, cool the burn area by drenching in cold water for at least 10 minutes. Do not attempt to remove anything from the burn area or apply burn creams or ointments. Cover the burn area loosely with a sterile dressing, if available. Transport to the nearest medical facility for additional treatment. It should be noted this product contracts on cooling. Where a limb is encased, care should be taken to avoid the development of a tourniquet effect. In the event of this occurring, the adhering product must be softened and/or split to prevent restriction of blood flow. All burns should receive medical attention.

Eye Contact:

Hot product - If contact with hot product, cool the burn area by flushing with cold water for at least 5 minutes. Do not attempt to remove anything from the burn area or apply burn creams or ointments. Cover the burn area loosely with a sterile dressing, if available. Transport to the nearest medical facility for additional treatment. All burns should receive medical attention.

Cold product - Flush with cold water for at least 5 minutes. If persistent irritation occurs, obtain medical attention.

Ingestion:

Under normal conditions of use, this is not expected to be a primary route of exposure.

Advice to Physician:

Do not attempt to remove the product from the skin as it provides an airtight sterile covering, which will eventually fall away with the scab as the burn heals. If removal is attempted, mineral oil (not mineral spirits) or a mineral oil based ointment may be applied to help soften the product to facilitate removal.

5. FIRE-FIGHTING MEASURES

NOTE: The bitumen emulsion is non-flammable, however the dried bitumen film will support combustion and the following guidance is relative to large scale fires involving the dried material.

Suitable Extinguishing Media:

Foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.

Unsuitable Extinguishing Media:

Do not use water in a jet.

Specific Exposure Hazards:

Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke). Carbon monoxide and sulphur oxides. Unidentified organic and inorganic compounds.

Protection of Fire-fighters:

Appropriate protective equipment including breathing apparatus must be worn when approaching a large fire or a fire in a confined space. Risk of explosion due to increased pressure if product containers or tanks become heated due to fire. Cool closed containers exposed to fire with water.

6. ACCIDENTAL RELEASE MEASURES

Avoid contact with spilled or released material. For guidance on selection of personal protective equipment and disposal see Sections 8 and 13 of this Safety Data Sheet.

Personal Precautions:

Avoid contact with skin, eyes and clothing, by wearing the appropriate personal protective equipment. Hot product should be handled so that there is no risk of burns. Prevent from spreading or entering into drains, ditches or rivers by using sand, earth, or other appropriate barriers.

Environmental Precautions:

Prevent from spreading or entering into drains, ditches or rivers by using sand, earth, or other appropriate barriers. Local authorities and/or Environmental regulators should be advised if significant spillages cannot be contained, or the product enters drains or watercourses.

Methods for Cleaning Up:

Small spillage: If hot allow to cool. Absorb with sand or earth and shovel into a suitable clearly marked container for disposal or reclamation in accordance with local regulations.

Large spillage: Prevent from spreading by making a barrier with sand, earth or other containment material. Treat residues as for small spillages.

7. HANDLING AND STORAGE

General Precautions:

Avoid direct contact with the product. Employ good standards of personal hygiene. Keep containers closed when not in use.

Handling Precautions:

For quality, health and safety reasons protect the product from freezing at temperatures below 2°C. This product is intended for use at ambient temperatures above 5°C. Under NO circumstances should the temperature exceed 90°C, as this may lead to boiling and frothing of the product.

Storage Precautions:

Store in properly labelled containers intended for this product. Store containers in a dry, well-ventilated place. If stored for more than a few hours circulate or agitate container contents before use.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limit Values:

Material	Source	TWA mg/m3	STEL mg/m3	Method
Bitumen - (Asphalt Fume)	EH40 WEL	5	10	-

Exposure Controls:

General Information:

This material has low volatility at ambient temperature and fume/vapour formation will be low. Avoid vapours from heated materials to prevent exposure to potentially irritating fumes. The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local circumstances. Where material is heated, sprayed or mist formed, there is greater potential for airborne concentrations of material to be generated.

Appropriate Measures:

Appropriate measures include adequate local, mechanical and general ventilation to control airborne concentrations below the exposure guidelines/limits. Adequate equipment, materials, work processes and appropriate organisational measures to ensure the safe transport, storage, handling, use and disposal of the material. Suitable measures to deal emergency situations, including spill control and fire along with suitable first aid provision and access to eye wash facilities and emergency showers.

Personal Protection Equipment:

Where exposure cannot be prevented by other means the use individual protection measures, such as personal protection equipment should be used. Personal protection equipment (PPE) should meet recommended CEN standards. Check with PPE suppliers.

Respiratory Protection:

Wear an appropriate respirator when ventilation is inadequate.



Eye and Head Protection:

For normal operations wear an appropriate safety hat with tightly fitted goggles or safety glasses with side shields. In situations where misting or splashing may occur, the addition of a face shield may be necessary.





Hand and Body Protection:

Wear gloves with suitability and durability appropriate to usage, e.g. heat resistance, frequency and duration of contact. Always seek advice from glove suppliers. Wear coveralls, (with cuffs over gloves and legs over boots), and heavy-duty boots, e.g. leather. The use of a suitable neck apron is also recommended.

Environmental Exposure Controls:

Minimise release to the environment. An environmental assessment must be made to ensure compliance with local environmental legislation.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Black to dark brown liquid.
Auto Flammability (°C):	No data applicable.
Boiling point (°C):	~100
Explosive Limits – lower/upper vol.%	No data applicable.
Flashpoint (°C):	No data applicable.
Melting point/ range (°C):	No data applicable.
Octanol/water Partition Coefficient:	Log (K _{ow}) >6
Odour:	Characteristic.
pH value:	2 to 5
Relative Density:	0.95 – 1.05
Solubility in water:	Negligible, but dispersible as an emulsion.
Vapour Pressure:	5mm Hg @ 40°C
Viscosity:	1 to 4 cSt @ 85°C

10. STABILITY AND REACTIVITY

Stability:

This material is stable under normal conditions of use.

Conditions to Avoid:

Heating above the recommended ambient storage and handling temperature, may cause boiling and frothing of the product. For quality reasons protect the product from freezing at temperatures below 2°C and do not use below 5°C.

Materials to Avoid:

Reacts with strong oxidising agents, alkalis and anionic emulsions (causes coagulation of the material). Avoid contamination of thermal insulation near hot surfaces by oil and bitumen and replace lagging where necessary, with a non-absorbent type of insulation. Self-heating, leading to autoignition at the surfaces of porous or fibrous materials impregnated with bitumen or condensates from bituminous fumes, can occur at temperatures below 100°C.

Hazardous Decomposition Products:

Burning can produce Carbon Monoxide, Carbon Dioxide, Oxides of Nitrogen and Sulphur, Polycyclic Aromatic Hydrocarbons and Hydrogen sulphide.

11. TOXICOLOGICAL INFORMATION

Information given is based on data on the components and the toxicology of similar products.

Toxicokinetics, Metabolism and Distribution:

No data available.

Acute Oral and Dermal Toxicity:

Expected to be of low toxicity: Oral and Dermal LD50 >2000 mg/kg.

Acute Inhalation Toxicity:

Not considered to be an inhalation hazard under normal conditions of use. Vapours from heated material may irritate eyes and respiratory system.

Skin Irritation:

Expected to be slightly irritating. Contact with hot material can cause thermal burns which may result in permanent skin damage.

Eye Irritation:

Vapours from heated material may irritate eyes. Hot material may cause severe eye burns and/or blindness.

Respiratory Irritation:

Inhalation of vapours or mists may cause irritation to the respiratory system.

Corrosivity:

There is no indication that the material exhibits corrosivity effects.

Sensitization:

There is no indication that the material is a skin sensitizer.

CMR Effects:**Carcinogenicity:**

Bitumens are not classified as dangerous under EC criteria. Bitumens contain low concentrations of Polycyclic Aromatic Compounds (PACs). In undiluted bitumens these PACs are not considered to be bio-available. However, if bitumens are mixed with diluents to obtain a low viscosity at ambient temperatures, it is believed that such materials may become bio-available. Despite the known presence of PACs there is no evidence that exposure to undiluted bitumens or their fumes is harmful.

Mutagenicity:

There is no indication that the material is a mutagenic hazard.

Toxicity for Reproduction:

No data available.

12. ECOLOGICAL INFORMATION

Ecotoxicological data has not been determined specifically for this product. Information given is based on knowledge of the Bitumen component and the ecotoxicology of similar products.

Eco Toxicity:

The Bitumen component is poorly soluble. May cause physical fouling of aquatic organisms. Expected to be practically non toxic: LL/EL/IL50 > 100 mg/l (to aquatic organisms) (LL/EL50 expressed as the nominal amount of product required to prepare aqueous test extract).

Mobility:

Adsorbs to soil and has low mobility. In water will either float or sink, showing little tendency to disperse, the product will adsorb to the sediment.

Persistence and degradability:

The Bitumen component is not expected to be inherently biodegradable.

Bioaccumulative Potential:

Bitumen has the potential to bioaccumulate. In practice, the very low water solubilities and high molecular weights of these substances are such that their bioavailability to aquatic organisms is limited and therefore bioaccumulation is unlikely.

Results of PBT Assessment:

No data available.

Other Adverse Effects:

Not expected to have ozone depletion potential, photochemical ozone creation potential or global warming potential.

13. DISPOSAL CONSIDERATIONS

Material Disposal:

Recover or recycle if possible. Dispose in accordance with prevailing regulations, to a recognised licensed collector or contractor. Disposal should be in accordance with applicable local, regional or national laws, regulations and provisions. The competence of the collector or contractor should be established beforehand. Do not dispose into the environment, in drains or in water courses.

Container Disposal:

Comply with any applicable local, regional or national laws, regulations and provisions for recovery or waste disposal regulations.

14. TRANSPORT INFORMATION

International Transport Regulations:

Regulation	UN No.	Proper Shipping Name	Class	CC ¹	PG ²	Label
ADR/RID	-	Not classified.	-	-	-	-
IMDG/ADNR	-	Not classified.	-	-	-	-
IATA	-	Not classified.	-	-	-	-
Marine Pollutant: No		Additional Information: Not classified as dangerous for transport, however bulk hot materials are labelled in accordance with the Chemical Industries Association, Black and White Marking Scheme... Emergency Action Code: 2X Description: HOT LIQUID				

KEY: CC¹= Classification Code / PG²= Packing Group

15. REGULATORY INFORMATION

The regulatory information is not intended to be comprehensive. Other regulations may apply to this material.

Chemical Safety Report (Carried out on component substances):

No data available at this time. Not classified as dangerous under EC criteria.

Hazard Symbols:

None.

Risk Phrases:

Not classified.

Safety Phrases:

Not classified.

16. OTHER INFORMATION

Sources of Key Data:

Component material, supplier's safety data sheets. REACH Regulation (EC) No 1907/2006 ANNEX II. The full text of any risk and safety phrases applicable to this product are listed in section 15. For the full text of any risk and safety phrases listed in section 3 which are not applicable to this product, reference should be made to the appropriate regulatory guidance.

Uses and Restrictions:

This product must not be used in applications other than those recommended in Section 1, without first seeking the advice of the supplier.

SDS Distribution:

The information in this document should be made available to all who may handle the product.

Regulatory Reference:

Environmental Protection Act 1990 (as amended). Health and Safety at Work Act 1974. Consumers Protection Act 1987. Control of Pollution Act 1974. Environmental Act 1995. Factories Act 1961. Carriage of Dangerous Goods by Road and Rail (Classification, Packaging and Labelling) Regulations. Chemicals (Hazard Information and Packaging for Supply) Regulations 2002. Control of Substances Hazardous to Health Regulations 1994 (as amended). Road Traffic (Carriage of Dangerous Substances in Packages) Regulations. Merchant Shipping (Dangerous Goods and Marine Pollutants) Regulations. Road Traffic (Carriage of Dangerous Substances in Road Tankers in Tank Containers) Regulations. Road Traffic (Training of Drivers of Vehicles Carrying Dangerous Goods) Regulations. Reporting of Injuries, Diseases and Dangerous Occurrences Regulations. Health and Safety (First Aid) Regulations 1981. Personal Protective Equipment (EC Directive) Regulations 1992. Personal Protective Equipment at Work Regulations 1992.

Disclaimer:

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.