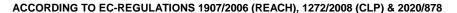
Revision: 27/03/2023 Version: 2.0





V 50-70

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

1.1 Product identifier

 Product name
 V 50-70

 Product description
 Bitumen

 Trade Name
 V 50-70

 Product code
 BIT50

 CAS No.
 8052-42-4

 EC No.
 232-490-9

REACH Registration No. 01-2119480172-44-xxxx

1.2 Relevant identified uses of the substance or mixture

and uses advised against

Identified Use(s)Bitumen for road construction.Uses advised againstAnything other than the above.

1.3 Details of the supplier of the safety data sheet

Company Identification Vitol SA

Place des Bergues 3 1201 Geneva Switzerland +31 10 498 7200

 Telephone
 +31 10 498 7200

 Fax
 +31 10 452 9545

 E-mail (competent person)
 xreach@vitol.com

1.4 Emergency Telephone Number

Emergency Phone No. +44 (0) 1235 239 670, 24/7
Language(s) spoken: All official European languages.

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

2.1.1 Regulation (EC) No. 1272/2008 (CLP) Not classified as hazardous for supply/use.

2.2 Label elements According to Regulation (EC) No. 1272/2008 (CLP)

Product description V 50-70

Hazard Pictogram(s)

None assigned

Signal Word(s) None assigned

Hazard Statement(s)

None assigned

Precautionary Statement(s)

None assigned

2.3 Other hazards Product may release Hydrogen Sulphide: A specific assessment of inhalation

risks from the presence of hydrogen sulphide in tank headspaces, confined spaces, product residue, tank waste and waste water, and unintentional releases should be made to help determine controls appropriate to local circumstances. Solid: Handling of this material may generate a dust which can cause mechanical irritation of the eyes, skin nose and throat. Contact with hot liquid causes

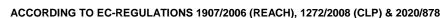
skinburns.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

| SUBSTANCE | CAS No. | EC No. | %W/W |
|-----------|---------|--------|------|

Revision: 27/03/2023 Version: 2.0





V 50-70

| Asphalt | 8052-42-4 | 232-490-9 | 100 |
|---------|-----------|-----------|-----|
| | | | |

SECTION 4: FIRST AID MEASURES



4.1 Description of first aid measures

Self-protection of the first aider

Inhalation

Skin contact

Eye contact

Ingestion

4.2 Most important symptoms and effects, both acute and delayed

4.3 Indication of any immediate medical attention and special treatment needed

Hydrogen sulphide

Hot/molten product

If it is suspected that fumes are still present, the responder should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If irritation develops and persists, get medical attention. Remove clothing and wash thoroughly before use. Remove clothing and wash thoroughly before use. If skin irritation or rash occurs: Get medical advice/attention.

If substance has got into the eyes, immediately wash out with plenty of water for at least 15 minutes. If irritation develops and persists, get medical attention.

Do NOT induce vomiting. Wash out mouth with water and give 200-300 ml (half a pint) of water to drink. If symptoms develop, obtain medical attention.

Solid: Handling of this material may generate a dust which can cause mechanical irritation of the eyes, skin nose and throat.

Unlikely to be required but if necessary treat symptomatically.

Inhalation: Remove to fresh air immediately. Apply artificial respiration if breathing has ceased or shows signs of failing. Obtain immediate medical attention.

Skin contact: In the event of burns from the molten liquid, do not attempt to remove

adhering material. Cool affected area quickly with water. Do not put ice on the burn. In the case of a circumferential burn with adhesion of the bitumen, the adhering material should be split to prevent a tourniquet effect as it cools.

Eye contact: If hot product is splashed into the eye, it should be cooled immediately to dissipate heat, under cold running water. Obtain prompt consultation, preferably from an ophthalmologist.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

5.2

Suitable extinguishing media

Extinguish with sand or dry chemical. Foam, Carbon dioxide, Water fog or dry powder.

Unsuitable extinguishing media

Do not use water jet. Direct water jet may spread the fire.

Special hazards arising from the substance or mixture Decomposes in a fire giving off toxic fumes: A mixture of solid and liquid particulates and gases including unidentified organic and inorganic compounds. Carbon monoxide, Carbon dioxide, Hydrogen sulphide, Sulphur oxides, Sulphuric

5.3 Advice for firefighters

Fight fire with normal precautions from a reasonable distance. Fire fighters should wear complete protective clothing including self-contained breathing apparatus. Keep containers cool by spraying with water if exposed to fire. Avoid release to the environment. Dike fire control water for later disposal.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures Stop leak if safe to do so. Ensure suitable personal protection during removal of spillages. Avoid all contact. Keep upwind. Eliminate sources of ignition. Ensure suitable personal protection during removal of spillages. Product may release Hydrogen Sulphide: A specific assessment of inhalation risks from the presence of hydrogen sulphide in tank headspaces, confined spaces, product residue, tank

Page: 2 of 7

Revision: 27/03/2023 Version: 2.0

Large spillages:





V 50-70

waste and waste water, and unintentional releases should be made to help

determine controls appropriate to local circumstances.

Take care that activity is executed only by specialists or authorised personnel.

Personal protection equipment: full body dermal protection.

Hot/molten product: Risk of burns from molten product. Let hot material cool naturally. If necessary,

cautiously use water fog to help the cooling. Do not direct jets of foam or water on

the spilled molten product, as this may cause splattering.

Avoid release to the environment. Do not allow to enter drains, sewers or watercourses. Spillages or uncontrolled discharges into watercourses must be

alerted to the Environment Agency or other appropriate regulatory body.

6.3 Methods and material for containment and cleaning

up

6.2

7.2

Sweep up and shovel into waste drums or plastic bags. Transfer to a lidded container for disposal or recovery. Ventilate the area and wash spill site after

material pick-up is complete.

Hot/molten product Allow product to cool/solidify and pick up as a solid.

6.4 Reference to other sections See Section: 8, 13

SECTION 7: HANDLING AND STORAGE

Environmental precautions

7.1 Precautions for safe handling

Use only outdoors or in a well-ventilated area. Avoid all contact. Do not ingest. Use personal protective equipment as required. See Section: 8. Keep good industrial hygiene. Wash hands thoroughly after handling. Contaminated clothing should be thoroughly cleaned.

H2S Warning

Product may release Hydrogen Sulphide: A specific assessment of inhalation risks from the presence of hydrogen sulphide in tank headspaces, confined spaces, product residue, tank waste and waste water, and unintentional releases should be made to help determine controls appropriate to local circumstances.

should be made to help determine controls appropriate to local circumstances. These controls may include: Segregation of areas, Access only to authorised persons, Permit to work systems, Confined space working procedures, Area H2S alarms, Personal H2S alarms, Personal escape sets, H2S awareness training.

Conditions for safe storage, including any incompatibilities

Ground/bond container and receiving equipment. Bund storage facilities to prevent soil and water pollution in the event of spillage. Keep only in the original container. Keep containers properly sealed when not in use. Protect from sunlight. Containers of this material may be hazardous when empty since they retain product residue. Deposits (carbonaceous materials and iron sulphides) can develop on the internal walls and roofs of tanks in case of long term storage. These deposits may be pyrophoric and self-ignite in contact with the air. See Also Section: 7.1: H2S Warning

Storage temperature Keep cool. Protect from sunlight.
Storage measures Keep only in the original container.
Incompatible materials Keep away from oxidising agents.

7.3 Specific end use(s) See Section: 1.2

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

8.1.1 Occupational exposure limits

| SUBSTANCE | CAS No. | LTEL (8 hr | LTEL (8 hr | STEL (ppm) | STEL | Note |
|--------------------------|-----------|------------|------------|------------|---------|------|
| | | TWA ppm) | TWA mg/m³) | | (mg/m³) | |
| Asphalt, petroleum fumes | 8052-42-4 | - | 5 | - | 10 | - |

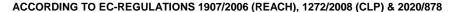
Source: WEL: Workplace Exposure Limit (UK HSE EH40)

Ireland

| SUBSTANCE | CAS No. | Occupational Exposure Limit Value (8-hour reference period) | | Occupational Exposure Limit Value (15-minute reference period) | | Notes |
|--|-----------|---|-------|--|-------|-------|
| | | ppm | mg/m³ | ppm | mg/m³ | |
| Asphalt (Bitumen), petroleum fumes, (inhalable fraction) | 8052-42-4 | - | 0.5 | - | - | - |

Source: 2021 Code of Practice for Safety, Health and Welfare at Work (Chemical Agents) Regulation (2001 - 2021) and the Safety, Health and

Revision: 27/03/2023 Version: 2.0





V 50-70

Welfare at Work (Carcinogens) Regulations (2001 - 2019); Health and Safety Authority

8.1.2 Biological limit value Not established

8.1.3 PNECs and DNELs Not established

8.2 Exposure controls

8.2.1 Appropriate engineering controls Ensure adequate ventilation to remove vapours, fumes, dust etc. Guarantee that

the eye flushing systems and safety showers are located close to the working

place.

8.2.2 Individual protection measures, such as personal

protective equipment

Keep good industrial hygiene. Wash contaminated clothing before reuse.

Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.

Eye/ face protection Wear eye protection with side protection (EN166).



Skin protection



Hand protection: Use gloves with insulation for thermal protection, when needed. EN374-407. Gloves should be changed regularly to avoid permeation problems. Breakthrough time of the glove material: refer to the information provided by the gloves' producer.

Body protection: Apron or other light protective clothing, boots and plastic or rubber gloves. Hot/molten product: Heat resistant coveralls (with trousers legs over boots and sleeves over cuffs of gloves), heat resistant heavy duty antiskid boots. EN943 – 1034 – 14605.

Head: For loading/unloading operations; Wear safety helmet with integrated full face visor and neck protection. EN 937

Respiratory protection When the product is heated / In case of inadequate ventilation wear respiratory



protection. Filter type B / Self-contained breathing apparatus (DIN EN 137)

Thermal hazards Not applicable

8.2.3 Environmental exposure controls Avoid release to the environment.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state Ambient: Solid

Hot/molten product: Viscous liquid
Colour Black / Brown
Odour Not established

Melting point/freezing point Softening Point (°C): 30 – 128 (EN 1427)

Boiling point or initial boiling point and boiling range > 320 °C
Flammability Not flammable
Lower and upper explosion limit Not established

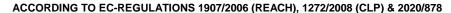
Flash point > 230 °C (COC) (EN ISO 2592)

Auto-ignition temperature > 400 °C

Decomposition temperature Not established

Page: 4 of 7

Revision: 27/03/2023 Version: 2.0





V 50-70

Not applicable

> 295 mm²/s at 135°C (EN 12595) Kinematic viscosity

Solubility Insoluble in water.

Toluene: 99% (EN 12592)

Partition coefficient: n-octanol/water (log value) Not established

< 0.1 kPa at 20°C Vapour pressure Density and/or relative density 0.925 - 1.07 at 15°C

Relative vapour density Not established Particle characteristics Not established

9.2 Other information None known

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity Stable under normal conditions 10.2 Chemical stability Stable under normal conditions

10.3 Possibility of hazardous reactions Hazardous polymerisation will not occur.

10.4 Conditions to avoid Keep away from heat, sources of ignition and direct sunlight.

10.5 Incompatible materials Keep away from oxidising agents. Strong acids, Alkalis, Nitrates. Avoid friction,

sparks, or other means of ignition.

10.6 Hazardous decomposition products Product may release Hydrogen Sulphide. Decomposes in a fire giving off toxic

fumes: Carbon monoxide, Carbon dioxide, Hydrocarbons. A mixture of solid and liquid particulates and gases including unidentified organic and inorganic

compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on hazard classes as defined in

Regulation (EC) No 1272/2008

Serious eye damage/irritation

Reproductive toxicity

Acute toxicity - Ingestion Based upon the available data, the classification criteria are not met.

LD50 (oral) mg/kg: > 5000 mg/kg bw/day (OECD 401) (Unnamed publication,

1982)

Based upon the available data, the classification criteria are not met. Acute toxicity - Inhalation

LC50 (inhalation) > 94.4 mg/m³ (rat) (OECD 403) (Unnamed publication, 2000)

Acute toxicity - Skin contact Based upon the available data, the classification criteria are not met.

LD50 (dermal) mg/kg: > 2000 mg/kg bw/day (OECD 402) (Unnamed publication,

1982)

Skin corrosion/irritation Based upon the available data, the classification criteria are not met.

> Non-irritant (rabbit) (OECD 404) (Unnamed publication, 1982) Based upon the available data, the classification criteria are not met. Non-irritant (rabbit) (OECD 405) (Unnamed publication, 1982)

Respiratory or skin sensitisation Based upon the available data, the classification criteria are not met.

Sensitisation (guinea pig) – Negative (OECD 406) (Unnamed publication, 1984)

Germ cell mutagenicity Based upon the available data, the classification criteria are not met.

There is no evidence of mutagenic potential. (ASTM Standard Method E 1687-

04) (Kriech et al., 2007)

Carcinogenicity Based upon the available data, the classification criteria are not met.

> No evidence of carcinogenicity. (OECD 453) (Unnamed publication, 2011) Based upon the available data, the classification criteria are not met.

No evidence of reproductive effects. (US EPA OPPTS 870.3800 and OECD

416) (Unnamed publication, 2011)

STOT - Single Exposure Based upon the available data, the classification criteria are not met. STOT - Repeated Exposure Based upon the available data, the classification criteria are not met.

Aspiration hazard Based upon the available data, the classification criteria are not met.

Information on other hazards 11.2.1 Endocrine disrupting properties This product does not contain a substance that has endocrine disrupting

properties with respect to humans as no components meets the criteria.

None known

Other information

11.2

11.2.2

Page: 5 of 7

Revision: 27/03/2023 Version: 2.0





V 50-70

SECTION 12: ECOLOGICAL INFORMATION

| 12.1 | loxicity | Not classified. Non-toxic to aquatic life. |
|------|------------------------------------|---|
| | | Estimated LC50 (fish) mg/l: > 1000 |
| 12.2 | Persistence and degradability | The product is poorly biodegradable. (CONCAWE 2013) |
| 12.3 | Bioaccumulative potential | No data available |
| 12.4 | Mobility in soil | The product is predicted to have low mobility in soil. Insoluble in water. |
| 12.5 | Results of PBT and vPvB assessment | Not classified as PBT or vPvB. None of the substances in this product fulfil the criteria for being regarded as a PBT or vPvB substance. (CONCAWE 2013) |
| 12.6 | Endocrine disrupting properties | This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria. |
| 12.7 | Other adverse effects | None known |
| | | |

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Disposal should be in accordance with local, state or national legislation.

Containers of this material may be bazardous when empty since they retain

Containers of this material may be hazardous when empty since they retain product residue. Containers must not be punctured or destroyed by burning, even when empty. Allocation of a waste code number, according to the European Waste Catalogue, should be carried out in agreement with the

regional waste disposal company.

National Carlo Name (and a Community Pro-

SECTION 14: TRANSPORT INFORMATION

| 14.1 | UN number or ID number | ADR/RID 3257 | IMDG/ADN 3257 |
|------|---|--|--|
| 14.2 | UN proper shipping name | ELEVATED TEMPERATURE LIQUID, N.O.S (Bitumen) | ELEVATED TEMPERATURE LIQUID, N.O.S (Bitumen) |
| 14.3 | Transport hazard class(es) | 9 | 9 |
| 14.4 | Packing group | III | III |
| 14.5 | Environmental hazards | Not classified | Not classified as a Marine Pollutant. |
| 14.6 | Special precautions for user | See Section: 2 | |
| 14.7 | Maritime transport in bulk according to IMO instruments | No information available. | No information available. |
| 14.8 | Additional information | ADR HIN: 99 | EmS: F-A, S-P |
| | | Tunnel restriction code: 3 (D) Limited Quantity: 0 | Limited Quantity: 0 |

SECTION 15: REGULATORY INFORMATION

| 15.1 | Safety, health and environmental |
|--------|---|
| | regulations/legislation specific for the substance or |
| | mixture |
| 15.1.1 | EU regulations |

Authorisations and/or restrictions on use None assigned

15.1.2 National regulations

Germany Water hazard class: nwg

15.2 Chemical Safety AssessmentA chemical safety assessment is not required under REACH.

SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: New SDS Regulation 2020/878 format, all sections have been updated to include new information. Please review SDS with care.

References:

Existing Safety Data Sheet (SDS)
Existing ECHA registration for Asphalt (CAS No. 8052-42-4)
CONCAWE 2013 Chemical Safety Report

Revision: 27/03/2023 Version: 2.0





V 50-70

Literature References:

 Kriech, A. J., Osborn, L. V., Wissel, H. L., Redman, A. P., Smith, L. A., & Dobbs, T. E. (2007). Generation of Bitumen Fumes Using Two Fume Generation Protocols and Comparison to Worker Industrial Hygiene Exposures. Journal of Occupational and Environmental Hygiene, 4(sup1), 6–19. https://doi.org/10.1080/15459620701358102

EU Classification: This Safety Data Sheet was prepared in accordance with EC Regulation (EC) 1907/2006 (REACH), 1272/2008 (CLP) & 2020/878

Legend

ADR ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
ADN European Agreement on the International Transport of Dangerous Goods by Inland Waterways

CAS Chemical Abstracts Service

CLP Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures

DNEL Derived no effect level EC European Community EU European Union

HSE Health and Safety Executive

IATA IATA: International Air Transport Association
ICAO ICAO: International Civil Aviation Organization
IMDG IMDG: International Maritime Dangerous Goods

LC50 Lethal Concentration at which 50% of the population is killed

LD50 Lethal Dose at which 50% of the population is killed

LTEL Long term exposure limit

MARPOL The International Convention for the Prevention of Pollution from Ships

OECD Organisation for Economic Cooperation and Development

PBT PBT: Persistent, Bioaccumulative and Toxic

PNEC Predicted No Effect Concentration

REACH Registration, Evaluation, Authorisation and Restriction of Chemicals

RID: Regulations concerning the international railway transport of dangerous goods

STEL Short term exposure limit

UN United Nations

US EPA United States Environmental Protection Agency vPvB vPvB: very Persistent and very Bioaccumulative

Training advice: Consideration should be given to the work procedures involved and the potential extent of exposure as they may determine whether a higher level of protection is required.

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Annex to the extended Safety Data Sheet (eSDS)

Not applicable