

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name: BITUMAC

Product description: Cold-applied plastomeric bituminous mastic

REACH registration number: Mixture (registration is not required according to REACH regulation, 1907/2006/EC) **UFI code**: HY7T-JKQT-000V-892A

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

1.2.1 Relevant identified uses: Sealing

Life Cycle Stages (LCS): PW - Widespread use by professional workers

Sector of Use (SU): SU22 - Professional uses

Product Category (PC): PC9b - Fillers, putties, plasters, modelling clay

Process Category (PROC): **PROC8a** - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities, **PROC0** – Other. Spatula application.

Environmental Release Category (ERC): ERC8f - Wide dispersive outdoor use resulting in inclusion into or onto a matrix

Article Category (AC): AC4a - Stone, plaster, cement, glass and ceramic articles: Large surface area articles, AC7a - Metal articles: Large surface area articles

Technical Function (TF): Other

Application of the substance / the mixture: Surface protection. Sealing horizontal and vertical cracks or expansion joints on roofs, walls, buildings, special points on concrete surfaces such as gutters, corners, metallic frames, ventilation frames.

1.2.2 Uses advised against: No additional information available.

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier - Further information obtainable from: BITUMIX S.A.

Bituminous Mixtures Production 15th km Old National Road Thesaloniki-Veria Agios Athanasios – Thesaloniki - Greece PO.Box: 1030, GR 57003 TEL: +30 2310 710017 FAX: +30 2310 710016 e-mail: <u>info@bitumix.gr</u>

1.4 Emergency telephone number

Regional Medicines and Poisons Information Centre NI Pharmacy Department, Royal Hospital Suite Grosvenor Road Belfast Telephone: +44 28 90 63 2032 Fax: +44 28 90 24 80 30 Emergency telephone (24h): 844 892 0111 E-mail address: nirdic.nirdic@belfasttrust.hscni.net European Emergency Number: 112

SECTION 2: Hazards identification

2.1 <u>Classification of the substance or mixture</u>

Classification according to Regulation 1272/2008/EC (CLP)

Repr. 2, H361d

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STOT RE 1, H372

Aquat. Chron. 3, H412

For full text of abbreviations: see section 16

2.2 Label elements

Labelling according to Regulation 1272/2008/EC (CLP)

Hazard pictograms:



GHS08

Signal words: Danger

Hazard determining components of labeling:

Toluene Hydrocarbons C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)

Hazard statements:

H361d: Suspected of damaging the unborn child. H372: Cause damage to organs through prolonged or repeated exposure. H412: Harmful to aquatic life with long lasting effects

Precautionary statements:

P261: Avoid breathing vapors.

P271: Use only outdoors or in a well-ventilated area.

P273: Avoid release to the environment.

P280: Wear protective gloves / protective clothing / eye protection / face protection.

P302+P352: IF ON SKIN: Wash with plenty of soap and water.

P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing P308+P313: IF EXPOSED: Call a POISON CENTER or doctor/physician

P370+P378: IN CASE OF FIRE: Use CO2, foam or dry powder to extinguish.

P501: Dispose of contents/container in accordance with local/regional/national/international regulations

2.3 Other hazards

The product does not contain substance(s) at levels of 0,1% or higher considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) according to Regulation 1907/2006/EC, Annex XIII.

There is no information for substance(s) contained in the product at levels of 0,1% or higher which included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable. The product is mixture.



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ngredient name	Percent	REACH	Index number	CAS number	EC number	Classification 1272/2008 (CLP)
	% w/w	registration number	number	number	number	1272/2008 (CLP)
Asphalt (substance with a workplace exposure limit)	55-65	01-2119480172- 44-XXXX	-	8052-42-4	232-490-9	-
Paraffin waxes and Hydrocarbon waxes substance with a workplace exposure limit)	1-5	01-2119488076- 30-0007, 01-2119488076- 30-xxxx	-	8002-74-2	232-315-6	-
Calcium carbonate (substance with a workplace exposure limit)	10-20	Exempted in accordance Annex V.7	-	1317-65-3	215-279-6	-
Toluene	1-5	01-2119471310- 51-XXXX	601-021-00-3	108-88-3	203-625-9	Flam. Liq. 2 H225, Repr. 2 H361d, Asp. Tox. 1 H304, STOT RE 2 H373, Skin Irrit. 2 H315, STOT SE 3 H336
White Spirit (Contains Benzene <0.1%)	8-13	01-2119458049- 33-XXXX	649-330-00-2	64742-82-1	919-446-0	Flam. Liq. 3 H226, Asp. Tox. 1 H304, STOT SE 3 H336, STOT RE 1 H372 Aquatic Chronic 2 H41: EUH066

For full text of abbreviations: see section 16

SECTION 4: First aid measures

4.1 Description of first aid measures

General instructions: Immediately remove any clothing soiled by the product. Symptoms may even occur after several hours, therefore medical observation is necessary for at least 48 hours after the accident.

After inhalation: Remove person to fresh air. If signs/symptoms continue, get medical attention. Keep patient warm and at rest. If breathing is irregular or stopped, provide artificial respiration or oxygen by trained personnel. In case of unconsciousness place patient stably in side position for transportation.

After skin contact: Remove contaminated clothing. Wash skin with soap and water. Use recognized skin cleanser. Do not use solvents. Seek medical attention for any rash or irritation.

After eye contact: If substance has got into the eyes, immediately wash out with plenty of water for at least 15 minutes. If symptoms persist, obtain medical attention.

After ingestion: Rinse mouth. DO NOT induce vomiting. Get medical attention immediately.

4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: CO₂, dry chemical powder, sand, foam, water spray Unsuitable extinguishing media: Strong water stream

5.2 Special hazards arising from the substance or mixture

Flammable solid with burning rate <2,2 mm/s and burning time >10 min (Method N1, Part 33.2.1 of UN

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recommendations). Harmful to aquatic life with long lasting effects. During heating or in case of fire poisonous gases may be produced.

5.3 Advice for fire-fighters

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA). Evacuate area. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Additional information:

Contaminated water and residues from the fire are collected separately and disposed of in accordance with local regulation. They must not be emptied into the drain.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: Immediately contact emergency personnel. No action shall be taken involving any personal risk or without suitable training. Keep unnecessary and unprotected personnel away. Do not walk through spilt material. Shut off and remove all ignition sources. No smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Put on appropriate personal protective equipment. **For emergency responders**: Wear suitable protective equipment (See section 8). Contact emergency services

For emergency responders: Wear suitable protective equipment (See section 8). Contact emergency services where appropriate. See also the information in "For non-emergency personnel".

6.2 Environmental precautions

Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Dangerous to the environment if released in large quantities. Collect spillage.

6.3 Methods and material for containment and cleaning up

Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Collect and reuse where possible. Contain and collect spillage with noncombustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. In case of contamination inform immediately the local authorities.

6.4 <u>Reference to other sections</u>

See Section 1 for emergency contact information. See Section 7 for information on safe handling. See Section 8 for information on personal protection equipment. See Section 13 for disposal information.

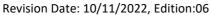
SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid contact with eyes and skin. Do not breathe its vapors. Apply in places with very good ventilation. Don't eat, drink or smoke while handling the material. Use appropriate means of body protection (gloves, glasses, overalls, shoes). Keep away from heat and ignition sources. Apply all rules of personal hygiene after each use. Take precautionary measure against electrostatic discharges. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Empty containers retain product residue and can be hazardous. Avoid release to the environment.

7.2 Conditions for safe storage, including any incompatibilities

Store in approved tightly closed and properly labeled container. Store in a well-ventilated shady place away from





sources of heat, ignition and direct contact with sunlight. Keep containers properly sealed and the content away from non-compatible materials, see section 10. Ensure containers are protected from physical damage and sealed when not in use.

7.3 Specific end use(s)

No further relevant information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values (Workplace Exposure Limits)

Ingredient name	TWA	STEL	Ceiling	Remarks
	(Long-term	(Short-term exposure	(Ceiling limit)	
	exposure limit)	limit)		
Toluene	50 ppm ή	100 ppm ή	-	WEL: EH40/2020
(CAS: 108-88-3)	192 mg/m3, 8h	384 mg/m3, 15min		
Asphalt fumes	5 mg/m3, 8h	10 mg/m3, 15min	-	WEL: EH40/2020
(CAS: 8052-42-4)				
Paraffin waxes and	2 mg/m3, 8h	6 mg/m3, 15min	-	WEL: EH40/2020
Hydrocarbon waxes				
(CAS: 8002-74-2)				
Calcium carbonate	10 mg/m3, 8h		-	WEL: EH40/2020
(CAS: 1317-65-3)				

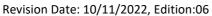
Derived No Effect Level (DNEL) according to Regulation (EC) 1907/2006 (Human health values)

Asphalt fumes (CAS: 8052-42-4) DNEL values		Oral exposure		Dermal exposure		Inhalative exposure	
		Short term (Acute)	Long term (Chronic)	Short term (Acute)	Long term (Chronic)	Short term (Acute)	Long term (Chronic)
Consumer	Local	-	-	-	-	-	0,6 mg/m3 24h
	Systemic	-	-	-	-	-	-
Worker	Local	-	-	-	-	-	2,9 mg/m3 8h
	Systemic	-	-	-	-	-	-

Toluene		Oral exposure		Dermal	Dermal exposure		e exposure
(CAS: 10 DNEL v		Short term (Acute)	Long term (Chronic)	Short term (Acute)	Long term (Chronic)	Short term (Acute)	Long term (Chronic)
Consumer	Local	-	-	-	-	-	-
	Systemic	-	8,1 mg/kg bw/day	-	226 mg/kg bw/day	-	56,5 mg/m3
Worker	Local	-	-	-	-	-	-
	Systemic	-	-	-	384 mg/kg bw/day	-	192 mg/m3 8h

White spirit (CAS: 64742-82-1) DNEL values		Oral exposure		Dermal exposure		Inhalative exposure	
		Short term (Acute)	Long term (Chronic)	Short term (Acute)	Long term (Chronic)	Short term (Acute)	Long term (Chronic)
Consumer	Local	-	-	-	-	-	-
	Systemic	-	26 mg/kg bw/day	-	26 mg/kg bw/day	570 mg/m3	71 mg/m3
Worker	Local	-	-	-	-	-	-
	Systemic	-	-	-	44 mg/kg bw/day	570 mg/m3	330 mg/m3

Predicted No Effect Concentration (PNEC) according to Regulation (EC) 1907/2006 (Environmental values)





Toluene (CAS: 108-88-3) PNEC values					
Compartment	Notes				
Fresh water	0,68 mg/l	No notes			
Marine water	0,68 mg/l	No notes			
Fresh water sediment	16,39 mg/kg	No notes			
Marine water sediment	16,39 mg/kg	No notes			
Sewage Treatment Plant	13,61 mg/l	No notes			
Soil	2,89 mg/kg	No notes			

8.2 Exposure controls

8.2.1 Appropriate engineering controls

Ensure good ventilation of the workstation. Emergency eye wash station and safety showers should be available in the immediate vicinity of any potential exposure. Take organizational measures to prevent /limit releases, dispersion and exposure. See also section 7.

8.2.2 Individual protection measures, such as personal protective equipment

General protective and hygienic measures: Avoid contact with skin and eyes. Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Respiratory protection: In case of brief exposure or low pollution use respiratory filter device Type A-Class P1 (Organic gases/vapours and Particulate). In case of intensive or longer exposure, use self-contained respiratory protective device (EN 140, 141).

Protection of hands: Wear suitable chemical-resistant gloves (EN 374). The glove material has to be impermeable and resistant to the product. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation (nitrile rubber, chloroprene rubber, PVC). The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. For this reason the suitability of gloves should be checked before use.

Eye protection: Wear safety glasses with side-shields (EN 166).

Body protection: Wear professional long-sleeved overalls and safety footwear (EN 340, 365, 466, 467)

8.2.3 Environmental exposure controls

Comply with applicable environmental regulations limiting discharge to air, water and soil. Protect the environment by applying appropriate control measures to prevent or limit emissions.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Properties	Values/Remarks
Physical state	High viscosity Paste
Colour	Black
Odour	Characteristic of organic solvents
Melting point	Not determined
Freezing point	Not determined
Boiling point or initial boiling point and boiling range	110-111°C (108-88-3 toluene)
Bolling point of mittal bolling point and bolling range	135-220°C (64742-82-1 white spirit)
	Flammable solid but does not meet the classification criteria (burning rate <2,2 mm/s
Flammability	and burning time >10 min (Method N1, Part
	33.2.1 of UN recommendations))
Lower and upper explosion limit	0,6 Vol % and 7,2 Vol % (64742-82-1 white spirit)
	1,2 Vol % and 7 Vol % (108-88-3 toluene)



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Flash point	Not applicable
Auto-ignition temperature	>200 °C (64742-82-1 white spirit)
Decomposition temperature	Not determined
рН	Not determined
Kinematic viscosity at 40 °C	>100.000 cSt
Dynamic viscosity at 25 °C	>100.000 cP
Solubility	Insoluble in water
Partition coefficient n-octanol/water (log value)	Not determined
Vapour pressure at 20 °C	Not determined
Density at 20 °C	1,05 – 1,20 gr/cm3
Relative vapour density	Not determined
Particle characteristics	Not determined

9.2 Other information

Content of V.O.C: Subcategory: Not applicable. Limit value V.O.C: Not applicable. Max value V.O.C: 190gr/lt

SECTION 10: Stability and reactivity

10.1 <u>Reactivity</u>

Non-reactive with other substances under normal conditions of storage and use.

10.2 Chemical stability

Stable under recommended conditions of storage and use. Not decomposed when it is stored and handled properly.

10.3 Possibility of hazardous reactions

Hazardous reactions and polymerisation will not occur under normal conditions of storage and use.

10.4 Conditions to avoid

Sources of ignition and heat. Electrostatic charges. Strong oxidizing substances, strong acids and bases.

10.5 Incompatible materials

Oxidising substances, strong acids and bases.

10.6 Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation 1272/2008/EC

Acute toxicity

Based on the available data, there is no classification

Ingredient name	Result	Species	Dose	Exposure
Toluene	LD50 Oral	Rat	636 mg/kg	
(CAS: 108-88-3)	LD50 Dermal	Rabbit	8390mg/kg	
	LC50 Inhalation	Rat	49 mg/l	4 h
White spirit	LD50 Oral	Rat	>15000 mg/kg	
(CAS: 64742-82-1)	LD50 Dermal	Rabbit	>3400 mg/kg	
	LC50 Inhalation	Rat	>13,1 mg/l	4 h

Skin corrosion/irritation

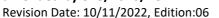
Based on the available data, there is no classification

Serious eye damage/irritation

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Based on the availa	ble data, there is no classification				
Respiratory or skin	sensitization				
	ble data, there is no classification				
C					
Germ cell mutagen					
Based on the availa	ble data, there is no classification				
Carcinogenicity					
Based on the availa	ble data, there is no classification				
Reproductive toxici	tv				
	ging the unborn child				
Cu a sifia taugat auga					
	n toxicity (STOT) (single exposure) ble data, there is no classification				
based on the availa					
	n toxicity (STOT) (repeated exposure)				
Causes damage to c	rgans after prolonged or repeated exposure				
Aspiration hazard					
There is no classifica	ation because the mixture has a viscosity greate	r than 20,5 cSt at 40 °C			
Information on like	ly routes of exposure				
	ther relevant information available.				
-	ther relevant information available.				
Inhalation: No furth	er relevant information available.				
Ingestion: No furthe	er relevant information available.				
Symptoms related	to the physical, chemical and toxicological char	acteristics			
	her relevant information available.				
-	ther relevant information available.				
	er relevant information available.				
Ingestion: No furthe	er relevant information available.				
Delayed and imme	liate effects and also chronic effects from shor	t and long term exposure			
Short term exposur					
Potential immediate	e effects: No further relevant information availa	ble.			
Potential delayed et	fects: No further relevant information available				
Long term exposure					
	e effects: No further relevant information availa				
Potential delayed effects: No further relevant information available. Potential chronic health effects: No further relevant information available.					
11.2 Information on other hazards					
Endocrine disrupting properties No further relevant information available.					
Other information					
	information available.				
SECTION 12: ECOL	ogical information				
12.1 <u>Toxicity</u>					
	ife with long lasting effects				
Ingredient name	Result	Toxicity	Exposure		
Taluana	EC50 12.500 mg/l (Pseudokirchn subcapitata)	Acute (short-term)	72 h		
Toluene (CAS: 108-88-3)	NOEC 1.000 mg/l (daphnia magna)	Chronic (long-term)	21 d		





White spirit	EC50 10-30mg/l (Oncorhynchus mykiss)	Acute (short-term)	96 h	
(CAS: 64742-82-1)	EC50 10-22mg/l (Daphnia magna)	Acute (short-term)	48 h	
	EL50 4,6-10mg/l (Algae)	Acute (short-term)	72 h	
	NOEC 0,13 mg/l (Oncorhynchous mykiss)	Chronic (long-term)	28 d	
	NOEC 0,28 mg/l (daphnia magna)	Chronic (long-term)	21 d	

12.2 Persistence and degradability

No further relevant information available.

12.3 Bioaccumulative potential

No further relevant information available.

12.4 Mobility in soil

The product contains volatile organic compounds (VOC) which will evaporate easily from all surfaces. Spillage unlikely to penetrate soil. The product is insoluble in water. It is not likely mobile in the environment due its low water solubility.

12.5 Results of PBT and vPvB assessment

The product contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0,1% or higher.

12.6 Endocrine disrupting properties

No further relevant information available.

12.7 Other adverse effects

No further relevant information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product disposal

In the absence of relevant alteration to the material or present of contaminants, disposal of this product as surplus (unused) or off-spec material or waste resulting from the foreseeable uses, does not present a specific hazard, or require special handling measures other than those indicates in section 7. Reuse or recycle product wherever possible.

The waste of product must be considered hazardous waste. They should not be mixed with other hazardous and non-hazardous waste and should not be disposed of in the water, sewer or ground. The waste of product must be collected separately and shall be submitted an authorized organization for waste management. Waste code according to the European Waste Catalog (EWC):

Wastes of the product: 08 04 09*- waste adhesives and sealants containing organic solvents or other dangerous

substances

Absorption material disposal

Absorption materials for accidental release of the product must be considered hazardous waste. They must be collected separately and shall be submitted an authorized organization for waste management.

Waste code according to the European Waste Catalog (EWC):

Absorption wastes of the product: 15 02 02* - absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by dangerous substances

Packaging disposal

Empty containers may contain residue and can be dangerous. Uncleaned packaging can be reused or collected separately and submitted an authorized organization for waste management.

Waste disposal code according to European Waste Catalog (EWC):

Cleaned waste packaging: 15 01 02 - plastic packaging



Not-cleaned waste packaging: 15 01 10^* - packaging containing residues of or contaminated by dangerous substances

SECTION 14: Transport information

The product must be transported by vehicles authorized to the carriage of dangerous goods according to the provisions set out in the current edition of the Code of International Carriage of Dangerous Goods (ADR/RID/IMDG/IATA) and in all the applicable national regulations. People loading and unloading dangerous goods must be trained on all the risks deriving from these substances and on all actions that must be taken in case of emergency situations

Classification according to ADR / RID, IMDG, IATA / ICAO transport regulations

14.1 <u>UN number</u>

ADR	IMDG	ΙΑΤΑ	RID
Not applicable	Not applicable	Not applicable	Not applicable

14.2 UN proper shipping name

ADR	IMDG	ΙΑΤΑ	RID
Not applicable	Not applicable	Not applicable	Not applicable

14.3 Transport hazard class(es)

ADR	IMDG	ΙΑΤΑ	RID
Not applicable	Not applicable	Not applicable	Not applicable

14.4 Packing group

ADR	IMDG	ΙΑΤΑ	RID
Not applicable	Not applicable	Not applicable	Not applicable

14.5 Environmental hazards

ADR	IMDG	ΙΑΤΑ	RID
Yes	Yes	Yes	Yes
	Marine Pollutant: No		

14.6 Special precautions for user

ADR	IMDG	ΙΑΤΑ	RID
None known	None known	None known	None known

Additional information

ADR	IMDG	ΙΑΤΑ	RID
None known	None known	None known	None known

14.7 <u>Transport in bulk according to Annex II of Marpol 73/78 and IBC Code</u> Not applicable Revision Date: 10/11/2022, Edition:06



SECTION 15: Regulatory information

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

15.1.1 Regulation 1907/2006/EC (REACH)

Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII): Product: points 3 and 40, Content of substance: point 48 Toluene

Substances subject to authorization (Annex XIV): None

Substances of Very High Concern (SVHC) according to Article 57 (candidate list): None

15.1.2 Directive 2012/18/EU (Seveso III) (Control of major-accident hazards involving dangerous substances): Dangerous substance/hazard categories:

Named dangerous substances - ANNEX I: None of the ingredients are listed. Seveso category: Not applicable

15.1.3 Regulation 649/2012/EC (Export and import of dangerous chemicals) : Substances subject to export and import reporting: None

15.1.4 Regulation 1005/2009/EC: Substances that deplete the ozone layer: None

15.1.5 Regulation 1021/2019/EC: Substances that are persistent organic pollutants (POP): None

15.1.6 Directive 2004/42/EC (Reduction of Volatile Organic Compound (VOC) emissions): VOC value: See section 9.2

15.1.7 Directive 98/24/EC:

Occupational Health and Safety Protection of Workers from Risks Due to Chemical Factors

Healthcare controls: Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

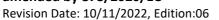
15.2 Chemical safety assessment

A Chemical Safety Assessment has been carried out for the components of the product: Toluene (CAS: 108-88-3), White spirit (CAS: 64742-82-1), Asphalt (CAS: 8052-42-4), Paraffin waxes and Hydrocarbon waxes (CAS: 8002-74-2)

SECTION 16: Other information

16.1 Abbreviations and acronyms

16.1 Abbreviation	16.1 <u>Abbreviations and acronyms</u>		
CLP	Regulation for Classification, Labelling and Packaging		
REACH	Regulation for Registration, Evaluation, Authorisation and Restriction of Chemicals		
GHS	Globally Harmonized System of classification and labeling of chemicals		
EINECS	European Inventory of Existing Commercial Chemical Substances		
ADR	Agreement on dangerous goods by road		
RID	Regulation concerning the international transport of dangerous goods by train		
IMDG	International Maritime Code for dangerous goods		
ΙΑΤΑ	International Air Transport Association		
IBC CODE	International Bulk Chemical code		
MARPOL	International Convention for the Prevention of Pollution from Ships		





EWC	European Waste Catalog
UN	United Nations
VOC	Volatile Organic Compounds
SVHC	Substance of Very High Concern
CAS NUMBER	Chemical Abstract Service Number
EC NUMBER	European Community number
INDEX NUMBER	Identifier in Annex VI of CLP
TWA	Time-weighted average exposure limit
STEL	Short-term exposure limit
CEILING	Concentration that should not be exceeded during any time of occupational exposure
PBT	Persistent bioaccumulative and toxic as REACH Regulation
vPvB	Very Persistent and very Bioaccumulative as for REACH Regulation.
DNEL	Derived No Effect Level
PNEC	Predicted no effect concentration
EC50	Effective concentration (required to induce a 50% effect)
EL50	Effect loading doses resulting in 50% mortality
LC50	Lethal Concentration 50%
LD50	Lethal dose 50%
NO(A)EC	No Observed (Adverse) Effect Concentration
NO(A)EL	No Observed (Adverse) Effect Level
16.2 <u>List of relevant p</u>	phrases (code and full text as stated in chapter 2 and 3)
16.2 <u>List of relevant p</u> Flam. Liq. 2	hrases (code and full text as stated in chapter 2 and 3) Flammable liquid, category 2
16.2 <u>List of relevant p</u> Flam. Liq. 2 Flam. Liq. 3	hrases (code and full text as stated in chapter 2 and 3) Flammable liquid, category 2 Flammable liquid, category 3
16.2 <u>List of relevant p</u> Flam. Liq. 2 Flam. Liq. 3 Repr. 2	phrases (code and full text as stated in chapter 2 and 3) Flammable liquid, category 2 Flammable liquid, category 3 Toxic to reproduction, category 2
16.2 <u>List of relevant p</u> Flam. Liq. 2 Flam. Liq. 3 Repr. 2 Skin Corr/Irrit 2	phrases (code and full text as stated in chapter 2 and 3) Flammable liquid, category 2 Flammable liquid, category 3 Toxic to reproduction, category 2 Skin corrosion/Irritation, category 2
16.2 List of relevant p Flam. Liq. 2 Flam. Liq. 3 Repr. 2 Skin Corr/Irrit 2 Asp. Tox. 1	whrases (code and full text as stated in chapter 2 and 3) Flammable liquid, category 2 Flammable liquid, category 3 Toxic to reproduction, category 2 Skin corrosion/Irritation, category 2 Aspiration hazard, category 1
16.2 <u>List of relevant p</u> Flam. Liq. 2 Flam. Liq. 3 Repr. 2 Skin Corr/Irrit 2 Asp. Tox. 1 STOT SE 3	ohrases (code and full text as stated in chapter 2 and 3) Flammable liquid, category 2 Flammable liquid, category 3 Toxic to reproduction, category 2 Skin corrosion/Irritation, category 2 Aspiration hazard, category 1 Specific target organ toxicity - single exposure, category 3
16.2 List of relevant p Flam. Liq. 2 Flam. Liq. 3 Repr. 2 Skin Corr/Irrit 2 Asp. Tox. 1 STOT SE 3 STOT RE 1	ohrases (code and full text as stated in chapter 2 and 3) Flammable liquid, category 2 Flammable liquid, category 3 Toxic to reproduction, category 2 Skin corrosion/Irritation, category 2 Aspiration hazard, category 1 Specific target organ toxicity - single exposure, category 3 Specific target organ toxicity - repeated exposure, category 1
16.2 List of relevant p Flam. Liq. 2 Flam. Liq. 3 Repr. 2 Skin Corr/Irrit 2 Asp. Tox. 1 STOT SE 3 STOT RE 1 STOT RE 2	phrases (code and full text as stated in chapter 2 and 3) Flammable liquid, category 2 Flammable liquid, category 3 Toxic to reproduction, category 2 Skin corrosion/Irritation, category 2 Aspiration hazard, category 1 Specific target organ toxicity - single exposure, category 3 Specific target organ toxicity - repeated exposure, category 1 Specific target organ toxicity - repeated exposure, category 2
16.2 List of relevant p Flam. Liq. 2 Flam. Liq. 3 Repr. 2 Skin Corr/Irrit 2 Asp. Tox. 1 STOT SE 3 STOT RE 1 STOT RE 2 Aquat. Chron. 2	phrases (code and full text as stated in chapter 2 and 3) Flammable liquid, category 2 Flammable liquid, category 3 Toxic to reproduction, category 2 Skin corrosion/Irritation, category 2 Aspiration hazard, category 1 Specific target organ toxicity - single exposure, category 3 Specific target organ toxicity - repeated exposure, category 1 Specific target organ toxicity - repeated exposure, category 2 Hazardous to the aquatic environment, chronic toxicity, category 2
16.2 List of relevant p Flam. Liq. 2 Flam. Liq. 3 Repr. 2 Skin Corr/Irrit 2 Asp. Tox. 1 STOT SE 3 STOT RE 1 STOT RE 2 Aquat. Chron. 2 EUH066	whrases (code and full text as stated in chapter 2 and 3) Flammable liquid, category 2 Flammable liquid, category 3 Toxic to reproduction, category 2 Skin corrosion/Irritation, category 2 Aspiration hazard, category 1 Specific target organ toxicity - single exposure, category 3 Specific target organ toxicity - repeated exposure, category 1 Specific target organ toxicity - repeated exposure, category 2 Hazardous to the aquatic environment, chronic toxicity, category 2 Repeated exposure may cause skin dryness or cracking
16.2 List of relevant p Flam. Liq. 2 Flam. Liq. 3 Repr. 2 Skin Corr/Irrit 2 Asp. Tox. 1 STOT SE 3 STOT RE 1 STOT RE 2 Aquat. Chron. 2 EUH066 H225	phrases (code and full text as stated in chapter 2 and 3) Flammable liquid, category 2 Flammable liquid, category 3 Toxic to reproduction, category 2 Skin corrosion/Irritation, category 2 Aspiration hazard, category 1 Specific target organ toxicity - single exposure, category 3 Specific target organ toxicity - repeated exposure, category 1 Specific target organ toxicity - repeated exposure, category 2 Hazardous to the aquatic environment, chronic toxicity, category 2 Repeated exposure may cause skin dryness or cracking Highly flammable liquid and vapors.
16.2 List of relevant p Flam. Liq. 2 Flam. Liq. 3 Repr. 2 Skin Corr/Irrit 2 Asp. Tox. 1 STOT SE 3 STOT RE 1 STOT RE 1 STOT RE 2 Aquat. Chron. 2 EUH066 H225 H226	phrases (code and full text as stated in chapter 2 and 3) Flammable liquid, category 2 Flammable liquid, category 3 Toxic to reproduction, category 2 Skin corrosion/Irritation, category 2 Aspiration hazard, category 1 Specific target organ toxicity - single exposure, category 3 Specific target organ toxicity - repeated exposure, category 1 Specific target organ toxicity - repeated exposure, category 2 Hazardous to the aquatic environment, chronic toxicity, category 2 Repeated exposure may cause skin dryness or cracking Highly flammable liquid and vapors. Flammable liquid and vapors.
16.2 List of relevant p Flam. Liq. 2 Flam. Liq. 3 Repr. 2 Skin Corr/Irrit 2 Asp. Tox. 1 STOT SE 3 STOT RE 1 STOT RE 1 STOT RE 2 Aquat. Chron. 2 EUH066 H225 H226 H304	phrases (code and full text as stated in chapter 2 and 3) Flammable liquid, category 2 Flammable liquid, category 3 Toxic to reproduction, category 2 Skin corrosion/Irritation, category 2 Aspiration hazard, category 1 Specific target organ toxicity - single exposure, category 3 Specific target organ toxicity - repeated exposure, category 1 Specific target organ toxicity - repeated exposure, category 2 Hazardous to the aquatic environment, chronic toxicity, category 2 Repeated exposure may cause skin dryness or cracking Highly flammable liquid and vapors. Flammable liquid and enters airways.
16.2 List of relevant p Flam. Liq. 2 Flam. Liq. 3 Repr. 2 Skin Corr/Irrit 2 Asp. Tox. 1 STOT SE 3 STOT RE 1 STOT RE 1 STOT RE 2 Aquat. Chron. 2 EUH066 H225 H226 H304 H315	phrases (code and full text as stated in chapter 2 and 3) Flammable liquid, category 2 Flammable liquid, category 3 Toxic to reproduction, category 2 Skin corrosion/Irritation, category 2 Aspiration hazard, category 1 Specific target organ toxicity - single exposure, category 3 Specific target organ toxicity - repeated exposure, category 1 Specific target organ toxicity - repeated exposure, category 2 Hazardous to the aquatic environment, chronic toxicity, category 2 Repeated exposure may cause skin dryness or cracking Highly flammable liquid and vapors. Flammable liquid and enters airways. Causes skin irritation
I6.2 List of relevant p Flam. Liq. 2 Flam. Liq. 3 Repr. 2 Skin Corr/Irrit 2 Asp. Tox. 1 STOT SE 3 STOT RE 1 STOT RE 2 Aquat. Chron. 2 EUH066 H225 H304 H315 H336	phrases (code and full text as stated in chapter 2 and 3) Flammable liquid, category 2 Flammable liquid, category 3 Toxic to reproduction, category 2 Skin corrosion/Irritation, category 2 Aspiration hazard, category 1 Specific target organ toxicity - single exposure, category 3 Specific target organ toxicity - repeated exposure, category 1 Specific target organ toxicity - repeated exposure, category 2 Hazardous to the aquatic environment, chronic toxicity, category 2 Repeated exposure may cause skin dryness or cracking Highly flammable liquid and vapors. Flammable liquid and vapors. May be fatal if swallowed and enters airways. Causes skin irritation May cause drowsiness or dizziness.
I6.2 List of relevant p Flam. Liq. 2 Flam. Liq. 3 Repr. 2 Skin Corr/Irrit 2 Asp. Tox. 1 STOT SE 3 STOT RE 1 STOT RE 1 STOT RE 2 Aquat. Chron. 2 EUH066 H225 H226 H304 H315 H336 H361d	bhrases (code and full text as stated in chapter 2 and 3) Flammable liquid, category 2 Flammable liquid, category 3 Toxic to reproduction, category 2 Skin corrosion/Irritation, category 2 Aspiration hazard, category 1 Specific target organ toxicity - single exposure, category 3 Specific target organ toxicity - repeated exposure, category 1 Specific target organ toxicity - repeated exposure, category 2 Hazardous to the aquatic environment, chronic toxicity, category 2 Repeated exposure may cause skin dryness or cracking Highly flammable liquid and vapors. Flammable liquid and enters airways. Causes skin irritation May cause drowsiness or dizziness. Suspected of damaging the unborn child
I6.2 List of relevant p Flam. Liq. 2 Flam. Liq. 3 Repr. 2 Skin Corr/Irrit 2 Asp. Tox. 1 STOT SE 3 STOT RE 1 STOT RE 2 Aquat. Chron. 2 EUH066 H225 H304 H315 H336 H361d	bhrases (code and full text as stated in chapter 2 and 3) Flammable liquid, category 2 Flammable liquid, category 3 Toxic to reproduction, category 2 Skin corrosion/Irritation, category 2 Aspiration hazard, category 1 Specific target organ toxicity - single exposure, category 3 Specific target organ toxicity - repeated exposure, category 1 Specific target organ toxicity - repeated exposure, category 2 Hazardous to the aquatic environment, chronic toxicity, category 2 Repeated exposure may cause skin dryness or cracking Highly flammable liquid and vapors. Flammable liquid and vapors. May be fatal if swallowed and enters airways. Causes skin irritation May cause drowsiness or dizziness. Suspected of damaging the unborn child Causes damage to organs through prolonged or repeated exposure.
I6.2 List of relevant p Flam. Liq. 2 Flam. Liq. 3 Repr. 2 Skin Corr/Irrit 2 Asp. Tox. 1 STOT SE 3 STOT RE 1 STOT RE 1 STOT RE 2 Aquat. Chron. 2 EUH066 H225 H226 H304 H315 H336 H361d	bhrases (code and full text as stated in chapter 2 and 3) Flammable liquid, category 2 Flammable liquid, category 3 Toxic to reproduction, category 2 Skin corrosion/Irritation, category 2 Aspiration hazard, category 1 Specific target organ toxicity - single exposure, category 3 Specific target organ toxicity - repeated exposure, category 1 Specific target organ toxicity - repeated exposure, category 2 Hazardous to the aquatic environment, chronic toxicity, category 2 Repeated exposure may cause skin dryness or cracking Highly flammable liquid and vapors. Flammable liquid and enters airways. Causes skin irritation May cause drowsiness or dizziness. Suspected of damaging the unborn child

16.3 Other information

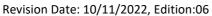
Suggested Use Restrictions: For professional use only

Notice to reader:

The information contained in this SDS is based on our current knowledge and information gained by applicable law. Any descriptions and data given herein may be changed without prior notice. Reported information is not a guarantee of product properties and do not justify legal consequences, but provide a framework welfare of the product for particular uses.

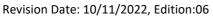


ANNEX: EXPOSURE SCENARIO EXPOSURE SCENARIO 1: Widespread use by professional worker SECTION 1.1: Exposure scenario title Short title Application of product Use descriptors Sector of use code (SU) SU22: Professional use Product category code (PC) PC9b - Fillers, putties, plasters, modelling clay Process category code (PROC) PROC8a: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities **PROCO:** Other - Spatula application Environmental release **ERC8f:** Widespread use leading to inclusion into/onto article (outdoor) category code (ERC) Article Category (AC) AC4a: Stone, plaster, cement, glass and ceramic articles: Large surface area articles AC7a: Metal articles: Large surface area articles tasks, activities Procedures, Covers the use as sealing material including exposure during use (including product transfer, storage, preparation, application by spray, roller, brush, covered hand or similar methods and film formation) and equipment cleaning. SECTION 1.2: Operating conditions and risk management measures 1.2.1 Contributing scenario controlling environmental exposure ERC8f: Widespread use leading to inclusion into/onto article (outdoor) **Operational Conditions (OC) Product characteristics** Cold-applied bituminous mastic. Contains the following dangerous substances: Toluene (CAS: 108-88-3) <6% w/w (Vapour pressure: 4kPa at 20oC, Water solubility: 573mgr/l, logKow: 2,73, medium volatility, readily biodegradable) White spirit (CAS: 64742-82-1) <14% w/w (Hydrocarbon UVCB, Vapour pressure: 0,231 kPa at 20oC, Water solubility: Insoluble, logKow: -, low volatility, readily biodegradable) Amount used Approximately 150 gr/m of join (1cm x 1cm) **Conditions of use** Ambient temperature. Outdoor. Duration and frequency of use Emission days per year: 365 days Other operational conditions Use only on hard ground environmental affecting exposure **Risk Management Measures (RMM)** Technical onsite conditions and Do not let it drain into the sewage system and into surface water. Do not let measures to reduce or limit it escape to the ground. The product is processed only in a concrete discharges, air emissions and





releases to soil	collection basin.
Organizational measures to prevent/limit release from site	Clean up contamination/spills as soon as they occur. Provide basic employee training to prevent/minimize exposure and to report any problems that may developed
Conditions and measures related to waste water treatment	Municipal sewage treatment plant is assumed
Conditions and measures to external treatment of waste for disposal	Waste type: Partially empty and unclean packaging. Leaking material. Dispose of the product and its containers as hazardous waste. Ensure that waste is collected and contained. Must not be disposed together with household garbage. Do not allow product to reach sewage system. For more information about rejection see section 13 of MSDS. External treatment and disposal of waste should comply with applicable local and/or national regulations.
Conditions and measures relate to external recovery of waste	External recovery and recycling of waste should comply with applicable local and/or national regulations
1.2.2 Contributing scenario contr	olling workers exposure
PROC8a: Transfer of substance o dedicated facilities	r preparation (charging/discharging) from/to vessels/large containers at non-
Operational Conditions (OC)	
Product characteristics	Cold-applied bituminous mastic. Contains the following dangerous substances:
	Toluene (CAS: 108-88-3) <6% w/w (Vapour pressure: 4kPa at 20oC, Water solubility: 573mgr/l, logKow: 2,73, medium volatility, readily biodegradable)
	White spirit (CAS: 64742-82-1) <14% w/w (Hydrocarbon UVCB, Vapour pressure: 0,231 kPa at 20oC, Water solubility: Insoluble, logKow: -, low volatility, readily biodegradable)
Amount used	Without limit
Conditions of use	Ambient temperature. Outdoor.
Duration and frequency of use	Cover daily exposure 0,25-1 hours
Other operational conditions affecting worker exposure	Assumes process temperature up to 40°C. Assumes a good basic standard of occupational hygiene is implemented.
Risk Management Measures (RM	IM)
Organisational protective measures	Provide a basic standard of general ventilation (1 to 3 air changes per hour). Collection of line waste in container. Retain wash downs in sealed storage pending disposal or for subsequent recycle. Clean up contamination/spills as soon as they occur. Keep away from sources of ignition - No smoking. Provide basic employee training to prevent/minimize exposure and to report any problems that may developed
Technical protective measures	No special measures required
Personal protective measures	Do not inhale gases / fumes / aerosols. Avoid contact with eyes and skin. Use appropriate personal protective equipment (overalls, gloves, glasses, shoes,





	mask) (see section 8.2.2)	
PROC0: Spatula application		
Operational Conditions (OC)		
Product characteristics	Cold-applied bituminous mastic. Contains the following dangerous substances:	
	Toluene (CAS: 108-88-3) <6% w/w (Vapour pressure: 4kPa at 20oC, Water solubility: 573mgr/l, logKow: 2,73, medium volatility, readily biodegradable)	
	White spirit (CAS: 64742-82-1) <14% w/w (Hydrocarbon UVCB, Vapour pressure: 0,231 kPa at 20oC, Water solubility: Insoluble, logKow: -, low volatility, readily biodegradable)	
Amount used	Approximately 150 gr/m of joint (1cm x 1cm)	
Conditions of use	Ambient temperature. Outdoor.	
Duration and frequency of use	Cover daily exposure up to 8 hours	
Other operational conditions affecting worker exposure	Assumes process temperature up to 40°C. Assumes a good basic standard of occupational hygiene is implemented.	
Risk Management Measures (RM	IM)	
Organisational protective measures	Ensure operation is undertaken outdoors. Clean up contamination/spills as soon as they occur. Keep away from sources of ignition - No smoking. Provide basic employee training to prevent/minimize exposure and to report any problems that may developed	
Technical protective measures	No special measures required	
Personal protective measures	Avoid contact with eyes and skin. Use appropriate personal protective equipment (overalls, gloves, glasses, shoes) (see section 8.2.2)	
1.2.3 Contributing scenario contr	olling consumer exposure	
There is no consumer exposure for	or this scenario	
SECTION 1.3: Exposure estimatio	n	
1.3.1 Exposure estimations contr	ibuting scenario for environmental exposure	
Management Measures (RMMs	t expected to exceed the predicted PNECs, when the recommended Risk) and Operational conditions (OCs) outlined in Section 2 of scenario are Management Measures / Operational Conditions are adopted, users should least at equivalent levels.	
1.3.2 Exposure estimations contr	ibuting scenario for workers exposure	
Management Measures (RMMs	t expected to exceed the predicted DNELs, when the recommended Risk) and Operational conditions (OCs) outlined in Section 2 of scenario are Management Measures / Operational Conditions are adopted, users should least at equivalent levels.	
1.3.3 Exposure estimations contr	ibuting scenario for consumers exposure	
There is no consumer exposure fo	or this scenario	
	stream Users to check compliance with the exposure scenario	

1.4.1 Guidance to Downstream Users to check compliance with the contributing scenario for environmental exposure



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Confirm that RMMs and OCs are as described or of equivalent efficiency. Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination. Required removal efficiency for air can be achieved using onsite technologies, either alone or in combination. Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries.html).

1.4.2 Guidance to Downstream Users to check compliance with the contributing scenario for workers exposure

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/ Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/ Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.