SAFETY DATA SHEET
CREOSOTE

According to Regulation (EC) No 1907/2006, Annex II, as amended.

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

1.1. Product identifier

Product name	CREOSOTE
Internal identification	00228269
Synonyms; trade names	CREOSOTE OIL WEI-B, CREOSOTE OIL WEI C, Tn Oil
REACH registration number	02-2119552711-43
CAS number	8001-58-9
EU index number	648-101-00-4
EC number	232-287-5
Authorisation number	IE/BPA 70412

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

Identified uses	Biocide. Wood impregnation. Wood preservation (for outdoor use).
Uses advised against	Restricted to professional users.

1.3. Details of the supplier of the safety data sheet

Supplier	Koppers International B.V. Carbon Materials and Chemicals Molenlaan 55 1422 XN Uithoorn Netherlands Tel: +45(0)63313100 E mail: euorguksds@koppers.eu

1.4. Emergency telephone number

Emergency telephone	NCEC +44 1865 407333

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards	Not Classified
Health hazards	Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1B - H317 Carc. 1B - H350 Repr. 1B - H360Fd
Environmental hazards	Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410

2.2. Label elements

EC number	232-287-5

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Pictogram

Signal word	Danger
Hazard statements	H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H350 May cause cancer. H360Fd May damage fertility. Suspected of damaging the unborn child. H410 Very toxic to aquatic life with long lasting effects.
Precautionary statements	P201 Obtain special instructions before use. P261 Avoid breathing vapour/ spray. P273 Avoid release to the environment. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P308+P313 IF exposed or concerned: Get medical advice/ attention. P302+P352 IF ON SKIN: Wash with plenty of water. P501 Dispose of contents/ container in accordance with national regulations.
Supplemental label information	RCH002a Restricted to professional users. RCH001b For use in industrial installations or professional treatment only.
Additional Information	Read the enclosed instructions before use. Use as a wood preservative. Freshly treated timber must be stored after treatment under shelter or on impermeable hardstanding, or both, to prevent direct losses to soil or water. Active substance: Creosote (CAS 8001-58-9) (1000 kg / 1000 kg). Mutual recognition of authorisation: XXXX.
Supplementary precautionary statements	P202 Do not handle until all safety precautions have been read and understood. P264 Wash contaminated skin thoroughly after handling. P272 Contaminated work clothing should not be allowed out of the workplace. P333+P313 If skin irritation or rash occurs: Get medical advice/ attention. P362+P364 Take off contaminated clothing and wash it before reuse. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337+P313 If eye irritation persists: Get medical advice/ attention. P391 Collect spillage. P405 Store locked up.

2.3. Other hazards

This substance is not classified as PBT or vPvB according to current EU criteria.

SECTION 3: Composition/information on ingredients

3.1. Substances

Product name	CREOSOTE
REACH registration number	02-2119552711-43
EU index number	648-101-00-4
CAS number	8001-58-9
EC number	232-287-5

SECTION 4: First aid measures

4.1. Description of first aid measures

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General information	Immediate first aid is imperative. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Show this Safety Data Sheet to the medical personnel.
Inhalation	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Loosen tight clothing such as collar, tie or belt. Get medical attention if symptoms are severe or persist.
Ingestion	Never give anything by mouth to an unconscious person. Rinse mouth thoroughly with water. Do not induce vomiting unless under the direction of medical personnel. Get medical attention.
Skin contact	It is important to remove the substance from the skin immediately. In the event of any sensitisation symptoms developing, ensure further exposure is avoided. Remove contamination with soap and water or recognised skin cleansing agent. Get medical attention if symptoms are severe or persist after washing.
Eye contact	Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention.
Protection of first aiders	First aid personnel should wear appropriate protective equipment during any rescue.

4.2. Most important symptoms and effects, both acute and delayed

General information	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
Inhalation	Vapour may irritate respiratory system/lungs.
Ingestion	May cause irritation. May cause stomach pain or vomiting. May cause sensitisation or allergic reactions in sensitive individuals.
Skin contact	Prolonged contact may cause redness, irritation and dry skin. May cause skin sensitisation or allergic reactions in sensitive individuals.
Eye contact	Irritating to eyes. Redness. Pain.

4.3. Indication of any immediate medical attention and special treatment needed

Notes for the doctor	Treat symptomatically.
Specific treatments	No specific chemical antidote is known to be required after exposure to this product. Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Extinguish with the following media: Foam, carbon dioxide or dry powder. Dry chemicals, sand, dolomite etc. Water spray, fog or mist.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards	Containers can burst violently or explode when heated, due to excessive pressure build-up. May form explosive mixture with air at very high concentration.
Hazardous combustion products	Thermal decomposition or combustion products may include the following substances: Oxides of carbon. Toxic gases or vapours.

5.3. Advice for firefighters

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Protective actions during firefighting Avoid breathing fire gases or vapours. Evacuate area. Keep upwind to avoid inhalation of gases, vapours, fumes and smoke. Ventilate closed spaces before entering them. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. If a leak or spill has not ignited, use water spray to disperse vapours and protect men stopping the leak. Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities.

Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Firefighter's clothing conforming to European standard EN469 (including helmets, protective boots and gloves) will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Wear protective clothing as described in Section 8 of this safety data sheet. No action shall be taken without appropriate training or involving any personal risk. Avoid inhalation of vapours and contact with skin and eyes. Provide adequate ventilation.

6.2. Environmental precautions

Environmental precautions Avoid discharge into drains or watercourses or onto the ground. Avoid discharge to the aquatic environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Stop leak if safe to do so. Do not touch or walk into spilled material. Absorb in vermiculite, dry sand or earth and place into containers. Containers with collected spillage must be properly labelled with correct contents and hazard symbol.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8. For waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Read and follow manufacturer's recommendations. Wear protective clothing as described in Section 8 of this safety data sheet. Do not eat, drink or smoke when using this product. Avoid spilling. Avoid contact with skin and eyes. Avoid inhalation of vapours. Wear protective skin cream on exposed skin before and during work shift. To reduce sun sensitivity a sun-blocking lotion (SPF 15+) can also be applied prior to application of a protective cream. Good personal hygiene procedures should be implemented. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site. Pregnant or breastfeeding women should not work with this product if there is any risk of exposure.

Advice on general occupational hygiene Wash promptly if skin becomes contaminated. Take off contaminated clothing and wash it before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Keep only in the original container. Keep container tightly closed, in a cool, well ventilated place. Keep away from heat, sparks and open flame. Store away from the following materials: Oxidising agents.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

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Ingredient comments

No exposure limits known for ingredient(s).

DMEL

Workers - Dermal; Long term local effects: 0.068 mg/kg/day
Worker exposure must be below these figures to keep the risk characterisation ratio <1.

PNEC

- Fresh water; 0.0001 mg/l
- Marine water; 0.00002 mg/l
- Soil; 0.34 mg/kg
- STP; 3.6 mg/l
- Sediment (Freshwater); 5 mg/kg
- Sediment (Marinewater); 5 mg/kg
- Intermittent release; 0.224 mg/l
- Oral; 11.5 mg/kg

Environmental exposure must be below these figures to keep the risk characterisation ratio <1.

8.2. Exposure controls

Protective equipment

Appropriate engineering controls

Provide adequate general and local exhaust ventilation. Ensure the ventilation system is regularly maintained and tested. Good general ventilation should be adequate to control worker exposure to airborne contaminants. Observe any occupational exposure limits for the product or ingredients. All handling should only take place in well-ventilated areas.

Eye/face protection

Wear tight-fitting, chemical splash goggles or face shield. Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Personal protective equipment for eye and face protection should comply with European Standard EN166.

Hand protection

Wear protective gloves. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. For exposure up to 4 hours, wear gloves made of the following material: Nitrile rubber. To protect hands from chemicals, gloves should comply with European Standard EN374. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected. The breakthrough time for any glove material may be different for different glove manufacturers. Frequent changes are recommended.

Other skin and body protection

Wear appropriate clothing to prevent any possibility of skin contact. Refer to European Standard EN 1149 for information on material and design requirements and test methods.

Hygiene measures

Provide eyewash station. Promptly remove any clothing that becomes wet or contaminated. Wash promptly with soap and water if skin becomes contaminated. Contaminated clothing should be placed in a closed container for disposal or decontamination. Warn cleaning personnel of any hazardous properties of the product. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site. When using do not eat, drink or smoke.

Respiratory protection

Wear a respirator fitted with the following cartridge: Combination filter, type A2/P3. Ensure all respiratory protective equipment is suitable for its intended use and is ‘CE’-marked. Check that the respirator fits tightly and the filter is changed regularly. Gas and combination filter cartridges should comply with European Standard EN14387. Full face mask respirators with replaceable filter cartridges should comply with European Standard EN136. Half mask and quarter mask respirators with replaceable filter cartridges should comply with European Standard EN140.

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Environmental exposure controls	Keep container tightly sealed when not in use. Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Coloured liquid.
Colour	Light brown.
Odour	Aromatic.
Odour threshold	No information available.
pH	No information available.
Melting point	< 23°C
Initial boiling point and range	250 - 400°C
Flash point	> 95°C Pensky-Martens closed cup.
Evaporation rate	No information available.
Flammability (solid, gas)	No information available.
Upper/lower flammability or explosive limits	No information available.
Vapour pressure	< 10 Pa @ 25°C
Vapour density	No information available.
Relative density	No information available.
Bulk density	1020 - 1150 kg/m³
Solubility(ies)	< 0.1 g/l water @ 20°C
Partition coefficient	No information available.
Auto-ignition temperature	> 450°C
Decomposition Temperature	No information available.
Viscosity	< 5 cSt @ 100°C
Explosive properties	Not considered to be explosive.
Oxidising properties	Does not meet the criteria for classification as oxidising.

9.2. Other information

Other information	No information required.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	There are no known reactivity hazards associated with this product.

10.2. Chemical stability

Stability	Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions.

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10.3. Possibility of hazardous reactions

Possibility of hazardous reactions No potentially hazardous reactions known.

10.4. Conditions to avoid

Conditions to avoid Avoid heat, flames and other sources of ignition.

10.5. Incompatible materials

Materials to avoid Strong oxidising agents.

10.6. Hazardous decomposition products

Hazardous decomposition products Heating may generate the following products: Toxic gases or vapours. Oxides of carbon.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

Notes (oral LD_{50}) LD_{50} : >2000 mg/kg, Rat, Based on available data the classification criteria are not met.

Acute toxicity - dermal

Notes (dermal LD_{50}) LD_{50} : > 2000 mg/kg, Rat, Based on available data the classification criteria are not met.

Acute toxicity - inhalation

Notes (inhalation LC_{50}) LC_{50} : > 5000 mg/m³, Aerosol, Rat 4 hours Based on available data the classification criteria are not met.

Skin corrosion/irritation

Skin corrosion/irritation Irritation in the presence of UV light.

Animal data Rabbit Irritating.

Serious eye damage/irritation

Serious eye damage/irritation Irritation of eyes and mucous membranes.

Respiratory sensitisation

Respiratory sensitisation Based on available data the classification criteria are not met.

Skin sensitisation

Skin sensitisation May cause an allergic skin reaction. Guinea pig maximization test (GPMT) - Guinea pig: Sensitising.

Germ cell mutagenicity

Genotoxicity - in vitro Based on available data the classification criteria are not met.

Carcinogenicity

Carcinogenicity 78 weeks, Dermal, Mouse Slightly positive.

IARC carcinogenicity IARC Group 2A Probably carcinogenic to humans.

Reproductive toxicity

Reproductive toxicity - fertility Two-generation study - NOAEL 25 mg/kg/day, Rat, May damage fertility.

Reproductive toxicity - development Teratogenicity: - NOAEL: 50 mg/kg/day, Rat, Suspected of damaging fertility.

Specific target organ toxicity - single exposure

STOT - single exposure Not classified as a specific target organ toxicant after a single exposure.

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Specific target organ toxicity - repeated exposure

STOT - repeated exposure NOAEL 400 mg/kg/day, Dermal, Rat NOAEC 22 mg/m³, Inhalation, Rat 90 days

Aspiration hazard

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

SECTION 12: Ecological Information

12.1. Toxicity

Toxicity Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410 Very toxic to aquatic life with long lasting effects.

Acute aquatic toxicity

$LE(C)_{50}$ $0.1 < L(E)C50 \leq 1$

M factor (Acute) 1

Acute toxicity - fish LC_{50}, 96 hours: 4.1 - 6.6 mg/l, Fish

Acute toxicity - aquatic invertebrates LC_{50}, 96 hours: 0.018 mg/l, Mysidopsis
EC_{50}, 48 hours: 1.14 mg/l, Daphnia magna

Acute toxicity - aquatic plants NOELR, 72 hours: 7.2 mg/l, Freshwater algae
EL_{50}, 72 hours: 26 mg/l, Freshwater algae

Acute toxicity - terrestrial NOEC, 28 days: 10 mg/kg, Springtails (Collembola)
NOEC, 28 days: 316 mg/kg, Soil micro-organisms

Chronic aquatic toxicity

M factor (Chronic) 1

12.2. Persistence and degradability

Biodegradation Not readily biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential BCF: 500 - 2000, Fish

Partition coefficient No information available.

12.4. Mobility in soil

Mobility Not considered mobile.

Adsorption/desorption coefficient Log Koc: 3.0 - 4.2 Calculation method.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current EU criteria.

12.6. Other adverse effects

Other adverse effects None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

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General information The generation of waste should be minimised or avoided wherever possible. Reuse or recycle products wherever possible. This material and its container must be disposed of as hazardous waste. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Empty containers or liners may retain some product residues and hence be potentially hazardous.

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labelled with their contents.

SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID) 3082

UN No. (IMDG) 3082

UN No. (ICAO) 3082

UN No. (ADN) 3082

14.2. UN proper shipping name

Proper shipping name (ADR/RID) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CREOSOTE)

Proper shipping name (IMDG) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CREOSOTE)

Proper shipping name (ICAO) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CREOSOTE)

Proper shipping name (ADN) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CREOSOTE)

14.3. Transport hazard class(es)

ADR/RID class 9

ADR/RID classification code M6

ADR/RID label 9

IMDG class 9

ICAO class/division 9

ADN class 9

Transport labels

14.4. Packing group

ADR/RID packing group III

IMDG packing group III

ADN packing group III

ICAO packing group III

14.5. Environmental hazards

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Environmentally hazardous substance/marine pollutant

14.6. Special precautions for user

EmS	F-A, S-F
ADR transport category	3
Emergency Action Code	•3Z
Hazard Identification Number (ADR/RID)	90

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable.

SECTION 15: Regulatory information

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

EU legislation	Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended). Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended). Commission Regulation (EU) 2015/830 of 28 May 2015.
Authorisations (Title VII Regulation 1907/2006)	No specific authorisations are known for this product.
Restrictions (Title VIII Regulation 1907/2006)	Entry number: 28-30 Restricted to professional users.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Classification procedures according to Regulation (EC) 1272/2008	Skin Irrit. 2 - H315, Eye Irrit. 2 - H319, Skin Sens. 1B - H317, Carc. 1B - H350, Repr. 1B - H360Df, Aquatic Acute 1 - H400, Aquatic Chronic 1 - H410: On basis of test data., Expert judgement., Weight of evidence.
Revision comments	SECTION 2: Hazards identification SECTION 1: Identification of the substance/mixture and of the company/undertaking
Revision date	22/11/2016
Revision	8
Supersedes date	24/05/2016
SDS number	167

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Hazard statements in full

H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H350 May cause cancer.
H360Fd May damage fertility. Suspected of damaging the unborn child.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.