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

- 1.1 Product identifier
- Trade name: Ramming paste
- 1.2 Relevant identified uses of the substance or mixture and uses advised against
  At the moment there is no information available.
- 1.3 Application of the substance / the mixture
  Ramming paste
- 1.4 Details of the supplier of the safety data sheet
  Manufacturer/Supplier:
  Rheinfelden Carbon GmbH & Co KG
  Bukheinstr. 2
  79618 Rheinfelden
  Germany
  Tel.: +49 7623 93 211
  Fax: +49 7623 93 548
  Further information obtainable from: msds@rheinfelden-carbon.eu
- 1.5 Emergency telephone number: +49 7623 93 375 (24 hours)

SECTION 2: Hazards identification

- 2.1 Classification of the substance or mixture
  Classification according to Regulation (EC) No 1272/2008

  
  GHS08 health hazard

  Muta. 1B H340 May cause genetic defects.
  Carc. 1B H350 May cause cancer.
  Repr. 1A H360FD May damage fertility. May damage the unborn child.
  Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.

  
  GHS07

  Skin Irrit. 2 H315 Causes skin irritation.
  Skin Sens. 1 H317 May cause an allergic skin reaction.
  Aquatic Chronic 4 H413 May cause long lasting harmful effects to aquatic life.

  
  2.2 Label elements
  Labelling according to Regulation (EC) No 1272/2008
  The product is classified and labelled according to the CLP regulation.

  Hazard pictograms

  
  GHS07  GHS08

  Signal word Danger
  Hazard-determining components of labelling:
  Pitch, coal tar, high-temp., heat-treated
  Creosote oil, acenaphthene fraction
  Distillates (coal tar), heavy oils
  Hazard statements
  H315 Causes skin irritation.
  H317 May cause an allergic skin reaction.
Trade name: Ramming paste

H340 May cause genetic defects.
H350 May cause cancer.
H360FD May damage fertility. May damage the unborn child.
H304 May be fatal if swallowed and enters airways.
H413 May cause long lasting harmful effects to aquatic life.

Precautionary statements

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P264 Wash thoroughly after handling.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P281 Use personal protective equipment as required.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P272 Contaminated work clothing should not be allowed out of the workplace.
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P321 Specific treatment (see on this label).
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

SECTION 3: Composition/information on ingredients

- 3.2 Chemical characterisation: Mixtures
- Description: Mixture of substances listed below with nonhazardous additions.

<table>
<thead>
<tr>
<th>CAS: 121575-60-8</th>
<th>Pitch, coal tar, high-temp., heat-treated</th>
</tr>
</thead>
<tbody>
<tr>
<td>EC number: 310-162-7</td>
<td></td>
</tr>
<tr>
<td>Index number: 648-056-00-0</td>
<td></td>
</tr>
<tr>
<td>Reg.nr.: 01-2119638193-40-XXXX</td>
<td></td>
</tr>
<tr>
<td>Muta. 1B, H340; Carc. 1B, H350; Repr. 1A, H360FD</td>
<td></td>
</tr>
<tr>
<td>Skin Sens. 1, H317</td>
<td></td>
</tr>
<tr>
<td>Aquatic Chronic 4, H413</td>
<td></td>
</tr>
<tr>
<td>&lt;10%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS: 90640-84-9</th>
<th>Creosote oil, acenaphthene fraction</th>
</tr>
</thead>
<tbody>
<tr>
<td>EINECS: 292-605-3</td>
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</tr>
<tr>
<td>Index number: 648-098-00-X</td>
<td></td>
</tr>
<tr>
<td>Reg.nr.: 01-2119548393-35-XXXX</td>
<td></td>
</tr>
<tr>
<td>Muta. 2, H341; Carc. 1B, H350; STOT RE 2, H373; Asp. Tox. 1, H304</td>
<td></td>
</tr>
<tr>
<td>Aquatic Chronic 2, H411</td>
<td></td>
</tr>
<tr>
<td>Skin Irrit. 2, H315; Skin Sens. 1, H317</td>
<td></td>
</tr>
<tr>
<td>&lt;10%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS: 90640-86-1</th>
<th>Distillates (coal tar), heavy oils</th>
</tr>
</thead>
<tbody>
<tr>
<td>EINECS: 292-607-4</td>
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<tr>
<td>Index number: 648-044-00-5</td>
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</tr>
<tr>
<td>Reg.nr.: 01-2119539472-38-XXXX</td>
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</tr>
<tr>
<td>Muta. 1B, H340; Carc. 1B, H350; Repr. 2, H361fd; Asp. Tox. 1, H304</td>
<td></td>
</tr>
<tr>
<td>Skin Irrit. 2, H315; Skin Sens. 1, H317</td>
<td></td>
</tr>
<tr>
<td>Aquatic Chronic 3, H412</td>
<td></td>
</tr>
<tr>
<td>&lt;5%</td>
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</table>

<table>
<thead>
<tr>
<th>CAS: 50-32-8</th>
<th>benzo[a]pyrene</th>
</tr>
</thead>
<tbody>
<tr>
<td>EINECS: 200-028-5</td>
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</tr>
<tr>
<td>Index number: 601-032-00-3</td>
<td></td>
</tr>
<tr>
<td>Muta. 1B, H340; Carc. 1B, H350; Repr. 1B, H360FD</td>
<td></td>
</tr>
<tr>
<td>Skin Sens. 1, H317</td>
<td></td>
</tr>
<tr>
<td>Aquatic Acute 1, H400; Aquatic Chronic 1, H410</td>
<td></td>
</tr>
<tr>
<td>&lt;0.01%</td>
<td></td>
</tr>
</tbody>
</table>

- Additional information: For the wording of the listed risk phrases refer to section 16.

SECTION 4: First aid measures

- 4.1 Description of first aid measures
- General information: Take affected persons out of danger area and lay down. Immediately remove any clothing soiled by the product.
Seek medical treatment.

- **After inhalation:**
  Supply fresh air and to be sure call for a doctor.
  In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:**
  After contact with the molten product, cool rapidly with cold water.
  Immediately wash with water and soap and rinse thoroughly.
  If skin irritation continues, consult a doctor.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:**
  Do not induce vomiting
  Rinse mouth with water
  Call for a doctor immediately.

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

- Breathing difficulty
- Irritation of skin
- Burns caused by molten product

### 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 agents: CO2, Extinguishing powder, Foam and Water spray
- For safety reasons unsuitable extinguishing agents: Water with full jet

### 5.2 Special hazards arising from the substance or mixture

During heating or in case of fire poisonous gases are produced.
- Carbon monoxide (CO)
- Carbon dioxide (CO2)
- Nitrogen oxides (NOx)
- Sulphur oxides (SOx)

### 5.3 Advice for firefighters

- Protective equipment: No special measures required.
- Additional information Cool endangered receptacles with water spray.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

- Use respiratory protective device against the effects of fumes/dust/aerosol.
- Wear protective clothing.
- Ensure adequate ventilation
- Avoid skin and eye contact.

### 6.2 Environmental precautions:

- Do not allow to enter sewers/ surface or ground water.
- Inform respective authorities in case of seepage into water course or sewage system.
- Keep fire fighting water and dispose appropriately.

### 6.3 Methods and material for containment and cleaning up:

- Dispose contaminated material as waste according to item 13.

### 6.4 Reference to other sections

- 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

Open and handle receptacle with care.

### Information about fire - and explosion protection:

Keep respiratory protective device available.
Trade name: Ramming paste

7.2 Conditions for safe storage, including any incompatibilities
- Storage:
  - Requirements to be met by storerooms and receptacles:
    - Store in dry conditions
    - Storage area and work places must be well ventilated
  - Information about storage in one common storage facility: Store away from oxidising agents.
  - Further information about storage conditions: None.
  - Storage class: 6.1 C

7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

- Additional information about design of technical facilities: No further data; see item 7.
- Control parameters
  - Ingredients with limit values that require monitoring at the workplace:
    The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
  - Additional information: The lists valid during the making were used as basis.
- Exposure controls
  - Personal protective equipment:
    - General protective and hygienic measures:
      - Keep workwear separate from other clothes.
      - Keep away from foodstuffs, beverages and feed.
      - Immediately remove all soiled and contaminated clothing
      - Wash hands before breaks and at the end of work.
      - Store protective clothing separately.
      - Do not eat, drink, smoke or sniff while working.
    - Respiratory protection:
      - In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
    - Material of gloves
      - Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.
      - Material of gloves
        - The choice of a suitable material does not only depend on the material but also from further quality criteria and they can differ from manufacturer to manufacturer. The product is a mixture of several components and therefore the resistance of the material of the gloves cannot be predetermined and must be tested before use.
      - Penetration time of glove material
        - The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
    - For the permanent contact gloves made of the following materials are suitable:
      - Butyl rubber, BR
      - Nitrile rubber, NBR
    - Eye protection: Tightly sealed goggles
    - Body protection: Protective work clothing
  - Limitation and supervision of exposure into the environment
    Information about environmental protection measures can be found under section 6.2.
    Information about appropriate disposal can be found under section 13.
SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties
- General Information
  - Appearance:
    - Form: Grained
    - Colour: Dark grey
  - Odour: mineral oil-like
  - Odour threshold: Not determined.
  - pH-value: Not applicable.
- Change in condition
  - Melting point/Melting range: Undetermined.
  - Boiling point/Boiling range: Undetermined.
- Flash point: Not applicable.
- Flammability (solid, gaseous): Product is not flammable.
- Ignition temperature: >550 °C
- Decomposition temperature: >400 °C (cokéfaction)
- Self-igniting: Product is not selfigniting.
- Danger of explosion: Product does not present an explosion hazard.
- Explosion limits:
  - Lower: Not determined.
  - Upper: Not determined.
- Oxidising properties: The product is not oxidizing.
- Vapour pressure: Not applicable.
- Density at 20 °C: 1,4-1,6 g/cm³
- Relative density: Not determined.
- Vapour density: Not applicable.
- Evaporation rate: Not applicable.
- Solubility in / Miscibility with water at 20 °C: 0,001 g/l (OECD Guideline 105)
- Partition coefficient (n-octanol/water): Not determined.
- Viscosity:
  - Dynamic: Not applicable.
  - Kinematic: Not applicable.
- Solvent content:
  - Organic solvents: 0,0 %
  - VOC (EC): 0,00 %
  - Solids content: 100,0 %
9.2 Other information: No further relevant information available.

SECTION 10: Stability and reactivity

10.1 Reactivity: Stable at standard temperatures and pressure.
10.2 Chemical stability
10.3 Possibility of hazardous reactions: No dangerous reactions known.
10.4 Conditions to avoid
- Avoid heat, flames, sparks and other sources of ignition.
- Avoid contact with incompatible materials.
10.5 Incompatible materials: Strong oxidiziers.
10.6 Hazardous decomposition products:
- Carbon monoxide
- Carbon dioxide
- Hydrocarbons
### SECTION 11: Toxicological information

**11.1 Information on toxicological effects**

#### Acute toxicity

**LD/LC50 values relevant for classification:**

<table>
<thead>
<tr>
<th>121575-60-8 Pitch, coal tar, high-temp., heat-treated</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Oral</strong></td>
</tr>
<tr>
<td><strong>Dermal</strong></td>
</tr>
<tr>
<td><strong>Carcinogenicity</strong></td>
</tr>
<tr>
<td><strong>Mutagenicity</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>90640-84-9 Creosote oil, acenaphthene fraction</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Oral</strong></td>
</tr>
<tr>
<td><strong>Dermal</strong></td>
</tr>
<tr>
<td><strong>Inhalative</strong></td>
</tr>
<tr>
<td><strong>NOAEC</strong></td>
</tr>
<tr>
<td><strong>Carcinogenicity</strong></td>
</tr>
<tr>
<td><strong>Corrosion/irritation</strong></td>
</tr>
<tr>
<td><strong>Eye damage/irritation</strong></td>
</tr>
<tr>
<td><strong>Mutagenicity</strong></td>
</tr>
<tr>
<td><strong>Reproduction toxicity</strong></td>
</tr>
<tr>
<td><strong>Respiratory or skin sensitisation</strong></td>
</tr>
<tr>
<td><strong>STOT-Single exposure</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>90640-86-1 Distillates (coal tar), heavy oils</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Oral</strong></td>
</tr>
<tr>
<td><strong>Dermal</strong></td>
</tr>
<tr>
<td><strong>Apilation hazard</strong></td>
</tr>
<tr>
<td><strong>Carcinogenicity</strong></td>
</tr>
<tr>
<td><strong>Corrosion/irritation</strong></td>
</tr>
<tr>
<td><strong>Eye damage/irritation</strong></td>
</tr>
<tr>
<td><strong>Mutagenicity</strong></td>
</tr>
<tr>
<td><strong>Reproduction toxicity</strong></td>
</tr>
<tr>
<td><strong>Respiratory or skin sensitisation</strong></td>
</tr>
<tr>
<td><strong>STOT-Repeated exposure</strong></td>
</tr>
<tr>
<td><strong>STOT-Single exposure</strong></td>
</tr>
<tr>
<td><strong>Skin irritation/corrosion</strong></td>
</tr>
</tbody>
</table>

**Primary irritant effect:**

- **Skin corrosion/irritation**
  - After longer exposure might be irritant to skin.
  - Causes skin irritation.

- **Serious eye damage/irritation**
  - Might have irritating effect.

- **Respiratory or skin sensitisation**
  - May cause an allergic skin reaction.

- **Acute effects (acute toxicity, irritation and corrosivity)**
  - This substance is phototoxic.

- **Sensitisation**
  - Vapours from hot product may cause irritation of nose, throat and eyes.

- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
  - Genotoxicity: positive (OECD 471)
  - Carcinogenicity: May cause cancer.
  - Reproductive Toxicity: May damage fertility or the unborn child.

- **Germ cell mutagenicity**
  - May cause genetic defects.

(Contd. on page 7)
Trade name: Ramming paste

- Carcinogenicity
  May cause cancer.

- Reproductive toxicity
  May damage fertility. May damage the unborn child.

- STOT-single exposure
  Based on available data, the classification criteria are not met.

- STOT-repeated exposure
  Based on available data, the classification criteria are not met.

- Aspiration hazard
  May be fatal if swallowed and enters airways.

SECTION 12: Ecological information

- 12.1 Toxicity

  Aquatic toxicity:
  No further relevant information available.

<table>
<thead>
<tr>
<th>Substance</th>
<th>EC10</th>
<th>EL50</th>
<th>LL50</th>
<th>NOELR</th>
</tr>
</thead>
<tbody>
<tr>
<td>121575-60-8 Pitch, coal tar, high-temp., heat-treated</td>
<td>0,042 mg/l (daphnia) (semi-static)</td>
<td>&gt;100 mg/l (Selenastrum capricornutum) (72 h) (OECD 201)</td>
<td>&gt;100 mg/l (Daphnia) (48 h) (OECD 202)</td>
<td>100 mg/l (Selenastrum capricornutum) (72 h) (OECD 201)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Substance</th>
<th>ErC10</th>
<th>ErL50</th>
<th>LL50</th>
<th>NOELR</th>
</tr>
</thead>
<tbody>
<tr>
<td>121575-60-8 Pitch, coal tar, high-temp., heat-treated</td>
<td>0,038 mg/L (Selenastrum capricornutum) (72 h)</td>
<td>25 mg/L (Selenastrum capricornutum) (72 h) (OECD 201, static)</td>
<td>79 mg/l (fish) (96 h) (OECD 203, semi-static)</td>
<td>100 mg/l (Daphnia) (21 d) (OECD 211)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Substance</th>
<th>NOEC</th>
<th>NOELR</th>
</tr>
</thead>
<tbody>
<tr>
<td>121575-60-8 Pitch, coal tar, high-temp., heat-treated</td>
<td>0,52 mg/L (Fish) (28 d) (Marine water, flow-through)</td>
<td>12 - 15 mg/L (Selenastrum capricornutum) (72 h)</td>
</tr>
</tbody>
</table>

- 12.2 Persistence and degradability
  No further relevant information available.

- 12.3 Bioaccumulative potential
  No further relevant information available.

- 12.4 Mobility in soil
  No further relevant information available.

Additional ecological information:

- General notes:
  Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
  Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

- 12.5 Results of PBT and vPvB assessment
  PBT: Not applicable.
Trade name: Ramming paste

- vPvB: Not applicable.
- 12.6 Other adverse effects: No further relevant information available.

SECTION 13: Disposal considerations

- 13.1 Waste treatment methods
  - Recommendation: Must not be disposed together with household garbage. Do not allow product to reach sewage system.

- European waste catalogue
  - 05 00 00 WASTES FROM PETROLEUM REFINING, NATURAL GAS PURIFICATION AND PYROLYTIC TREATMENT OF COAL
  - 05 06 00 wastes from the pyrolytic treatment of coal
  - 05 06 03* other tars

- Uncleaned packaging:
  - Recommendation: Disposal must be made according to official regulations.

SECTION 14: Transport information

- 14.2 UN proper shipping name
  - ADR, RID, ADN, IMDG, IATA: not regulated

- 14.4 Environmental hazards:
  - Marine pollutant: No

- 14.6 Special precautions for user
  - Not applicable.

- 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code
  - Not applicable.

- UN "Model Regulation": Void

SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
  - National regulations:
    - Information about limitation of use: Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation. Exceptions can be made by the authorities in certain cases.

- 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Relevant phrases
  - H304 May be fatal if swallowed and enters airways.
  - H315 Causes skin irritation.
  - H317 May cause an allergic skin reaction.
  - H340 May cause genetic defects.
  - H341 Suspected of causing genetic defects.
  - H350 May cause cancer.
  - H360FD May damage fertility. May damage the unborn child.
  - H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.
  - H373 May cause damage to organs through prolonged or repeated exposure.
  - H400 Very toxic to aquatic life.
  - H410 Very toxic to aquatic life with long lasting effects.
  - H411 Toxic to aquatic life with long lasting effects.
  - H412 Harmful to aquatic life with long lasting effects.
  - H413 May cause long lasting harmful effects to aquatic life.

- Abbreviations and acronyms:
  - RID: Règlement International concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
**Trade name: Ramming paste**

(Contd. of page 8)

- ICAO: International Civil Aviation Organisation
- ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
- IMDG: International Maritime Code for Dangerous Goods
- IATA: International Air Transport Association
- GHS: Globally Harmonised System of Classification and Labelling of Chemicals
- EINECS: European Inventory of Existing Commercial Chemical Substances
- ELINCS: European List of Notified Chemical Substances
- CAS: Chemical Abstracts Service (division of the American Chemical Society)
- VOC: Volatile Organic Compounds (USA, EU)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
- Skin Sens. 1: Sensitisation - Skin, Hazard Category 1
- Muta. 1B: Germ cell mutagenicity, Hazard Category 1B
- Muta. 2: Germ cell mutagenicity, Hazard Category 2
- Carc. 1B: Carcinogenicity, Hazard Category 1B
- Repr. 1A: Reproductive toxicity, Hazard Category 1A
- Repr. 1B: Reproductive toxicity, Hazard Category 1B
- Repr. 2: Reproductive toxicity, Hazard Category 2
- STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2
- Asp. Tox. 1: Aspiration hazard, Hazard Category 1
- Aquatic Acute 1: Hazardous to the aquatic environment - Acute Hazard, Category 1
- Aquatic Chronic 1: Hazardous to the aquatic environment - Chronic Hazard, Category 1
- Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2
- Aquatic Chronic 3: Hazardous to the aquatic environment - Chronic Hazard, Category 3
- Aquatic Chronic 4: Hazardous to the aquatic environment - Chronic Hazard, Category 4