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

1.1. Product identifier

1070 TUNTEX Hohlraumversiegelung Wachs K31070100AB

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

1.3. Details of the supplier of the safety data sheet

Company name: TUNAP GmbH & Co. KG
Street: Bürgermeister-Seidl-Str. 2
Place: D-82515 Wolfratshausen
Telephone: +49 (0) 8171/1600 - 0
Telesan: +49 (0) 8171/1600 - 40
e-mail: sdb@tunap.com
Internet: www.tunap.com

1.4. Emergency telephone number:

+49 (0) 30 30 686 790 (Giftnotruf Berlin)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

Hazard categories:
- Flammable liquid: Flam. Liq. 3
- Specific target organ toxicity - single exposure: STOT SE 3

Hazard Statements:
- Flammable liquid and vapour.
- May cause drowsiness or dizziness.

2.2. Label elements

Regulation (EC) No. 1272/2008

Hazard components for labelling
- Hydrocarbons, C9 - C11, n-alkanes, iso-alkanes, cyclics, < 2 % aromates

Signal word: Warning

Pictograms:

H226 Flammable liquid and vapour.
H336 May cause drowsiness or dizziness.

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P243 Take action to prevent static discharges.
P260 Do not breathe vapours.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P272 Contaminated work clothing should not be allowed out of the workplace.
P302 + P352 IF ON SKIN: Wash with plenty of Water and soap..
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.
P314 Get medical advice/attention if you feel unwell.

Special labelling of certain mixtures
EUH066 Repeated exposure may cause skin dryness or cracking.
EUH208 Contains Sulfonic acids, petroleum, calcium salts. May produce an allergic reaction.

2.3. Other hazards
The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>64742-48-9</td>
<td>Hydrocarbons, C9 - C11, n-alkanes, iso-alkanes, cyclics, &lt; 2 % aromates</td>
<td>25 - &lt; 50 %</td>
</tr>
<tr>
<td>919-857-5</td>
<td>01-2119463250-33</td>
<td></td>
</tr>
<tr>
<td>61789-86-4</td>
<td>Sulfonic acids, petroleum, calcium salts</td>
<td>5 - &lt; 10 %</td>
</tr>
<tr>
<td>265-093-9</td>
<td>01-211948992-18</td>
<td></td>
</tr>
<tr>
<td>64742-48-9</td>
<td>Aliphatic solvent</td>
<td>3 - &lt; 5 %</td>
</tr>
<tr>
<td>265-150-3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Full text of H and EUH statements: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information
First aider: Pay attention to self-protection! Remove persons to safety. Never give anything by mouth to an unconscious person or a person with cramps.

After inhalation
Remove person to fresh air and keep comfortable for breathing. In all cases of doubt, or when symptoms persist, seek medical advice.

After contact with skin
Wash with plenty of water and soap. Take off immediately all contaminated clothing and wash it before reuse. In all cases of doubt, or when symptoms persist, seek medical advice.

After contact with eyes
Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. In case of troubles or persistent symptoms, consult an ophthalmologist.

After ingestion
Do NOT induce vomiting. Observe risk of aspiration if vomiting occurs. Call a physician in any case!

4.2. Most important symptoms and effects, both acute and delayed
Headache, nausea, dizziness, fatigue, skin irritation

4.3. Indication of any immediate medical attention and special treatment needed
Treat symptomatically. Call a POISON CENTER. Symptoms can occur only after several hours.

SECTION 5: Firefighting measures

5.1. Extinguishing media
Suitable extinguishing media

Unsuitable extinguishing media
- High power water jet.

5.2. Special hazards arising from the substance or mixture
Incomplete combustion and thermolysis gases of different toxicity can occur. In the case of hydrocarbonaceous products such as CO, CO2, aldehydes and soot. These can be very dangerous if they are inhaled in high concentrations or in enclosed spaces.

5.3. Advice for firefighters
- In case of fire and/or explosion do not breathe fumes. Move undamaged containers from immediate hazard area if it can be done safely. In case of fire: Wear self-contained breathing apparatus.
- Use water spray jet to protect personnel and to cool endangered containers. Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

Additional information
- Use water spray jet to protect personnel and to cool endangered containers. Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
- Wear breathing apparatus if exposed to vapours/dusts/aerosols. Remove all sources of ignition. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- Wear personal protection equipment.

6.2. Environmental precautions
- Do not allow to enter into surface water or drains. Prevent spread over a wide area (e.g. by containment or oil barriers). Ensure all waste water is collected and treated via a waste water treatment plant.

6.3. Methods and material for containment and cleaning up
- Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Clean contaminated articles and floor according to the environmental legislation.

6.4. Reference to other sections
- Safe handling: see section 7
- Personal protection equipment: see section 8
- Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling
- Advice on safe handling
  - Observe instructions for use.
  - Dust must be exhausted directly at the point of origin. Vapours/aerosols must be exhausted directly at the point of origin. If local exhaust ventilation is not possible or not sufficient, the entire working area should be ventilated by technical means.
  - When using do not eat, drink, smoke, sniff.
  - Wear personal protection equipment (refer to section 8).

- Advice on protection against fire and explosion
  - Keep away from sources of ignition - No smoking.

- Further information on handling
  - Avoid contact with skin and eyes.

7.2. Conditions for safe storage, including any incompatibilities
- Requirements for storage rooms and vessels
  - Keep container tightly closed. Observe legal regulations and provisions.

- Hints on joint storage
  - Do not store together with: Oxidizing agents. Pyrophoric or self-heating substances. Food and feedingstuffs.
Further information on storage conditions
Store in a cool dry place. Observe legal regulations and provisions.

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

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>DNEL/DMEL values</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS No</td>
</tr>
<tr>
<td>--------</td>
</tr>
<tr>
<td>61789-86-4</td>
</tr>
<tr>
<td>61789-86-4</td>
</tr>
<tr>
<td>61789-86-4</td>
</tr>
<tr>
<td>61789-86-4</td>
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<tr>
<td>61789-86-4</td>
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<tr>
<td>61789-86-4</td>
</tr>
<tr>
<td>61789-86-4</td>
</tr>
<tr>
<td>64742-48-9</td>
</tr>
<tr>
<td>64742-48-9</td>
</tr>
<tr>
<td>64742-48-9</td>
</tr>
<tr>
<td>64742-48-9</td>
</tr>
</tbody>
</table>

PNEC values

<table>
<thead>
<tr>
<th>Substance</th>
<th>CAS No</th>
<th>Environmental compartment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulfonic acids, petroleum, calcium salts</td>
<td>61789-86-4</td>
<td>Value</td>
</tr>
<tr>
<td>Freshwater</td>
<td></td>
<td>1 mg/l</td>
</tr>
<tr>
<td>Freshwater (intermittent releases)</td>
<td></td>
<td>10 mg/l</td>
</tr>
<tr>
<td>Marine water</td>
<td></td>
<td>1 mg/l</td>
</tr>
<tr>
<td>Freshwater sediment</td>
<td></td>
<td>226000000 mg/kg</td>
</tr>
<tr>
<td>Marine sediment</td>
<td></td>
<td>226000000 mg/kg</td>
</tr>
<tr>
<td>Secondary poisoning</td>
<td></td>
<td>16,667 mg/kg</td>
</tr>
<tr>
<td>Micro-organisms in sewage treatment plants (STP)</td>
<td></td>
<td>1000 mg/l</td>
</tr>
<tr>
<td>Soil</td>
<td></td>
<td>271000000 mg/kg</td>
</tr>
</tbody>
</table>

Additional advice on limit values
a no restriction
b End of exposure or end of shift
c at long term exposure: after several previous shifts
d before next shift

blood (B)
8.2. Exposure controls

Appropriate engineering controls
If handled uncovered, arrangements with local exhaust ventilation have to be used.

Protective and hygiene measures
Avoid exposure. Wear suitable protective clothing. Draw up and observe skin protection programme.

Eye/face protection
Suitable eye protection: Tightly sealed safety glasses.
DIN EN 166

Hand protection
Protect skin by using skin protective cream. When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.
Suitable material: NBR (Nitrile rubber) Breakthrough time (maximum wearing time) 480min
Thickness of the glove material 0,45 mm
DIN EN 374

Skin protection
Wear suitable protective clothing. Take off immediately all contaminated clothing and wash it before reuse.

Respiratory protection
Wear breathing apparatus if exposed to vapours/dusts/aerosols.
When exceeding the relevant workplace exposure limits, note the following:
Suitable respiratory protective equipment: Combination filter device (DIN EN 141). Filtering device with filter or ventilator filtering device of type: A
Observe the wear time limits as specified by the manufacturer.
Observe legal regulations and provisions.

Environmental exposure controls
Observe legal regulations and provisions.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Test method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Paste</td>
<td></td>
</tr>
<tr>
<td>Colour</td>
<td>beige</td>
<td>DIN 19268</td>
</tr>
<tr>
<td>Odour</td>
<td>characteristic</td>
<td></td>
</tr>
<tr>
<td>pH-Value (at 20 °C):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Changes in the physical state</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Melting point</td>
<td>not determined</td>
<td></td>
</tr>
<tr>
<td>Initial boiling point and boiling range:</td>
<td>130 °C</td>
<td></td>
</tr>
<tr>
<td>Flash point</td>
<td>40 °C ISO 3679</td>
<td></td>
</tr>
<tr>
<td>Flammability</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solid:</td>
<td>not applicable</td>
<td></td>
</tr>
<tr>
<td>Gas:</td>
<td>not applicable</td>
<td></td>
</tr>
<tr>
<td>Lower explosion limits:</td>
<td>0,6 vol. %</td>
<td></td>
</tr>
<tr>
<td>Upper explosion limits:</td>
<td>7 vol. %</td>
<td></td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solid:</td>
<td>not applicable</td>
<td></td>
</tr>
<tr>
<td>Gas:</td>
<td>not applicable</td>
<td></td>
</tr>
</tbody>
</table>
Decomposition temperature: not determined

Oxidizing properties
Not oxidising.

Vapour pressure: 2.1 hPa (at 20 °C)

Density (at 20 °C): 0.83 g/cm³ DIN 51757

Water solubility: easily soluble

Solubility in other solvents
not determined

Partition coefficient: not determined

Viscosity / dynamic: DIN 53019-1

Viscosity / kinematic (at 40 °C): DIN EN ISO 3104

Flow time: (at 20 °C) DIN EN ISO 2431

Vapour density: not determined

Evaporation rate: not determined

9.2. Other information
Solid content: not determined

SECTION 10: Stability and reactivity

10.1. Reactivity
Flammable.

10.2. Chemical stability
The product is stable under normal conditions.

10.3. Possibility of hazardous reactions
No hazardous reaction when handled and stored according to provisions.

10.4. Conditions to avoid
Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Take precautionary measures against static discharges.

10.5. Incompatible materials
Oxidizing agents. Pyrophoric or self-heating substances.

10.6. Hazardous decomposition products
Incomplete combustion and thermolysis gases of different toxicity can occur. In the case of hydrocarbonaceous products such as CO, CO₂, aldehydes and soot. These can be very dangerous if they are inhaled in high concentrations or in enclosed spaces.

Further information
Do not mix with other chemicals.

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Toxicokinetics, metabolism and distribution
There are no data available on the mixture itself.

Acute toxicity
Based on available data, the classification criteria are not met.
Irritation and corrosivity
Based on available data, the classification criteria are not met.

Sensitising effects
Contains Sulfonic acids, petroleum, calcium salts. May produce an allergic reaction.

Carcinogenic/mutagenic/toxic effects for reproduction
Based on available data, the classification criteria are not met.
No indications of human carcinogenicity exist.
No indications of human germ cell mutagenicity exist.
No indications of human reproductive toxicity exist.

STOT-single exposure
May cause drowsiness or dizziness. (Hydrocarbons, C9 - C11, n-alkanes, iso-alkanes, cyclics, < 2 % aromates)

STOT-repeated exposure
Repeated exposure may cause skin dryness or cracking.

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

Specific effects in experiment on an animal
No information available.

Practical experience

Observations relevant to classification
The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

SECTION 12: Ecological information

12.1. Toxicity
The product is not: Ecotoxic.
### Aquatic toxicity

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS No</th>
<th>Acute fish toxicity</th>
<th>LC50 mg/l</th>
<th>96 h</th>
<th>Pimephales promelas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrocarbons, C9 - C11, n-alkanes, iso-alkanes, cyclics, &lt; 2 % aromates</td>
<td>64742-48-9</td>
<td>&gt; 100</td>
<td>Pimephales promelas</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS No</th>
<th>Acute algae toxicity</th>
<th>ErC50 mg/l</th>
<th>72 h</th>
<th>Pseudokirchneriella subcapitata</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrocarbons, C9 - C11, n-alkanes, iso-alkanes, cyclics, &lt; 2 % aromates</td>
<td>64742-48-9</td>
<td>&gt; 100</td>
<td>Pseudokirchneriella subcapitata</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS No</th>
<th>Acute crustacea toxicity</th>
<th>EC50 mg/l</th>
<th>48 h</th>
<th>Daphnia magna</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrocarbons, C9 - C11, n-alkanes, iso-alkanes, cyclics, &lt; 2 % aromates</td>
<td>64742-48-9</td>
<td>&gt; 100</td>
<td>Daphnia magna</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS No</th>
<th>Acute algae toxicity</th>
<th>ErC50 mg/l</th>
<th>72 h</th>
<th>Pseudokirchneriella subcapitata</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulfonic acids, petroleum, calcium salts</td>
<td>61789-86-4</td>
<td>&gt; 1000</td>
<td>Pseudokirchneriella subcapitata</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS No</th>
<th>Acute crustacea toxicity</th>
<th>EC50 mg/l</th>
<th>48 h</th>
<th>Daphnia magna</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulfonic acids, petroleum, calcium salts</td>
<td>61789-86-4</td>
<td>&gt; 1000</td>
<td>Daphnia magna</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 12.2. Persistence and degradability

The product has not been tested.

### 12.3. Bioaccumulative potential

The product has not been tested.

### Partition coefficient n-octanol/water

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS No</th>
<th>Log Pow</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrocarbons, C9 - C11, n-alkanes, iso-alkanes, cyclics, &lt; 2 % aromates</td>
<td>64742-48-9</td>
<td>5</td>
</tr>
<tr>
<td>Sulfonic acids, petroleum, calcium salts</td>
<td>61789-86-4</td>
<td>&gt; 4.46</td>
</tr>
</tbody>
</table>

### 12.4. Mobility in soil

The product has not been tested.

### 12.5. Results of PBT and vPvB assessment

The product has not been tested.

### 12.6. Other adverse effects

No information available.

### Further information

Avoid release to the environment.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

**Advice on disposal**

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.

**Waste disposal number of waste from residues/unused products**

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Waste disposal number of waste from residues/unused products</th>
</tr>
</thead>
<tbody>
<tr>
<td>080111</td>
<td>WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU and removal of paint and varnish; waste paint and varnish containing organic solvents or other hazardous substances; hazardous waste</td>
</tr>
</tbody>
</table>

**Waste disposal number of used product**

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Waste disposal number of used product</th>
</tr>
</thead>
<tbody>
<tr>
<td>080111</td>
<td>WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU and removal of paint and varnish; waste paint and varnish containing organic solvents or other hazardous substances; hazardous waste</td>
</tr>
</tbody>
</table>
Waste disposal number of contaminated packaging

150110  WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by hazardous substances; hazardous waste

Contaminated packaging
Wash with plenty of water. Completely emptied packages can be recycled.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number: UN 1139
14.2. UN proper shipping name: Coating solution
14.3. Transport hazard class(es): 3
14.4. Packing group: III
Texture restriction code: D/E

Inland waterways transport (ADN)

14.1. UN number: UN 1139
14.2. UN proper shipping name: Coating solution
14.3. Transport hazard class(es): 3
14.4. Packing group: III
Texture restriction code: D/E

Marine transport (IMDG)

14.1. UN number: UN 1139
14.2. UN proper shipping name: Coating solution
14.3. Transport hazard class(es): 3
14.4. Packing group: III
Texture restriction code: D/E

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: UN 1139
14.2. UN proper shipping name: Coating solution
14.3. Transport hazard class(es): 3
14.4. Packing group: III
Safety Data Sheet

according to Regulation (EC) No 1907/2006

1070 TUNTEX Hohlraumversiegelung Wachs K31070100AB
Revision date: 09.10.2018 Product code: 1400418 Page 10 of 11

Hazard label: 3
Special Provisions: A3
Limited quantity Passenger: 10 L
Passenger LQ: Y344
Excepted quantity: E1
IATA-packing instructions - Passenger: 355
IATA-max. quantity - Passenger: 60 L
IATA-packing instructions - Cargo: 366
IATA-max. quantity - Cargo: 220 L

14.5. Environmental hazards
ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user
Warning: Combustible liquid.

14.7. Transport in bulk according to Annex II of Marpol 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 regulatory information
Restrictions on use (REACH, annex XVII):
Entry 28: Hydrocarbons, C9 - C11, n-alkanes, iso-alkanes, cyclics, < 2 % aromates; Aliphatic solvent
2010/75/EU (VOC): No information available.
2004/42/EC (VOC): No information available.
Subcategory according to Directive 2004/42/EC: Special finishes - All types, VOC limit value: 840 g/l

Additional information
Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

National regulatory information
Employment restrictions: Observe restrictions to employment for juvenils according to the ‘juvenile work protection guideline’ (94/33/EC).
Water contaminating class (D): 2 - clearly water contaminating
Skin resorption/Sensitization: Causes allergic hypersensitivity reactions.

15.2. Chemical safety assessment
Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Abbreviations and acronyms
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 Harmonized 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
LC50: Lethal concentration, 50%
LD50: Lethal dose, 50%
Relevant H and EUH statements (number and full text)

- **H226**: Flammable liquid and vapour.
- **H304**: May be fatal if swallowed and enters airways.
- **H317**: May cause an allergic skin reaction.
- **H336**: May cause drowsiness or dizziness.
- **EUH066**: Repeated exposure may cause skin dryness or cracking.
- **EUH208**: Contains Sulfonic acids, petroleum, calcium salts. May produce an allergic reaction.

Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*