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

1.1. Product identifier

Product name: FIRE VARNISH ACTIVATOR NG
Product code: FVTHERMAC

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

Use of substance / mixture: Acid catalyst to be mixed with Fire varnish base NG

1.3. Details of the supplier of the safety data sheet

Company name: Thermoguard UK Ltd
Kirkby Street
Hull
HU2 0HE
United Kingdom
Tel: 01142 768 008
Fax: 01624 825 526
Email: technical@thermoguard.co.uk

1.4. Emergency telephone number

Emergency tel: 01624 825 115
(office hours only)

Section 2: Hazards identification

2.1. Classification of the substance or mixture

Classification under CLP: Skin Corr. 1B: H314; Met. Corr. 1: H290; Skin Irrit. 2: H315; Eye Dam. 1: H318

Most important adverse effects: May be corrosive to metals. Causes skin irritation. Causes serious eye damage.

2.2. Label elements

Label elements:
Hazard statements: H290: May be corrosive to metals.
H315: Causes skin irritation.
H318: Causes serious eye damage.

Hazard pictograms: GHS05: Corrosion

Signal words: Danger

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

[cont...]
P303+361+353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+313: If skin irritation or rash occurs: Get medical advice/attention.
P234: Keep only in original container.
P390: Absorb spillage to prevent material damage.
P406: Store in corrosive resistant container with a resistant inner liner.
P264: Wash hands thoroughly after handling.
P310: Immediately call a for instructions/advice.

2.3. Other hazards

PBT: This product is not identified as a PBT/vPvB substance.

Section 3: Composition/information on ingredients

3.2. Mixtures

Hazardous ingredients:

PHOSPHORIC ACID PROPYL ESTER

<table>
<thead>
<tr>
<th>EINECS</th>
<th>CAS</th>
<th>PBT / WEL</th>
<th>CLP Classification</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td>145441-41-4</td>
<td>-</td>
<td>Met. Corr. 1: H290; Skin Irrit. 2: H315; Eye Dam. 1: H318</td>
<td>30-50%</td>
</tr>
</tbody>
</table>

ALUMINIUM TRIS(DIHYDROGEN PHOSPHATE) - REACH registered number(s): 01-2119490078-32-0000

<table>
<thead>
<tr>
<th>EINECS</th>
<th>CAS</th>
<th>PBT / WEL</th>
<th>CLP Classification</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td>13530-50-2</td>
<td>-</td>
<td>Eye Dam. 1: H318</td>
<td>10-30%</td>
</tr>
</tbody>
</table>

2-PHENOXYETHANOL

<table>
<thead>
<tr>
<th>EINECS</th>
<th>CAS</th>
<th>PBT / WEL</th>
<th>CLP Classification</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>204-589-7</td>
<td>122-99-6</td>
<td>-</td>
<td>Acute Tox. 4: H302; Eye Irrit. 2: H319</td>
<td>1-10%</td>
</tr>
</tbody>
</table>

ORTHOPHOSPHORIC ACID

<table>
<thead>
<tr>
<th>EINECS</th>
<th>CAS</th>
<th>PBT / WEL</th>
<th>CLP Classification</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>231-633-2</td>
<td>7664-38-2</td>
<td>-</td>
<td>Skin Corr. 1B: H314</td>
<td>1-10%</td>
</tr>
</tbody>
</table>

Non-classified ingredients:

TROYSOL LAC

<table>
<thead>
<tr>
<th>EINECS</th>
<th>CAS</th>
<th>PBT / WEL</th>
<th>CLP Classification</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>452-570-9</td>
<td></td>
<td></td>
<td>Skin Irrit. 2: H315; Aquatic Chronic 2: H411; Eye Dam. 1: H318; STOT RE 2: H373</td>
<td>&lt;1%</td>
</tr>
</tbody>
</table>

Contains: aluminium tris(dihydrogen phosphate) phosphoric acid propyl ester
Section 4: First aid measures

4.1. Description of first aid measures

**Skin contact:** Remove all contaminated clothes and footwear immediately unless stuck to skin. Drench the affected skin with running water for 10 minutes or longer if substance is still on skin. Transfer to hospital if there are burns or symptoms of poisoning.

**Eye contact:** Bathe the eye with running water for 15 minutes. Seek immediate medical advice.

**Ingestion:** Wash out mouth with water. Do not induce vomiting. If unconscious, check for breathing and apply artificial respiration if necessary. If unconscious and breathing is OK, place in the recovery position. Obtain immediate medical attention.

**Inhalation:** Remove casualty from exposure ensuring one's own safety whilst doing so. May cause irritation of the respiratory system. Keep the patient warm and at rest. If unconscious and breathing is OK, place in the recovery position. If conscious, ensure the casualty sits or lies down. If breathing becomes bubbly, have the casualty sit and provide oxygen if available. Consult a doctor.

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

**Skin contact:** Irritation or pain may occur at the site of contact. Blistering may occur.

**Eye contact:** Splashes in the eye. May cause permanent damage.

**Ingestion:** Corrosive burns may appear around the lips. Corrosive - even small amounts can cause serious damage.

**Inhalation:** There may be shortness of breath with a burning sensation in the throat. Exposure may cause coughing or wheezing.

**Delayed / immediate effects:** Immediate effects can be expected after short-term exposure.

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

**Immediate / special treatment:** Eye bathing equipment should be available on the premises. Show this safety data sheet to the doctor in attendance.

Section 5: Fire-fighting measures

5.1. Extinguishing media

**Extinguishing media:** Suitable extinguishing media for the surrounding fire should be used. Carbon dioxide. Alcohol resistant foam. Dry chemical powder. Water fog. Use water spray to cool containers.

5.2. Special hazards arising from the substance or mixture

**Exposure hazards:** Corrosive. In combustion emits toxic fumes.

5.3. Advice for fire-fighters

**Advice for fire-fighters:** Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes. Do not allow run off to enter watercourses or drains.
Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: Avoid breathing any vapours. Ventilate the area. Exclude all non essential personnel. Do not attempt to take action without suitable protective clothing - see section 8 of SDS. Turn leaking containers leak-side up to prevent the escape of liquid.

6.2. Environmental precautions

Environmental precautions: Do not discharge into drains or rivers. Contain the spillage using bunding.

6.3. Methods and material for containment and cleaning up

Clean-up procedures: Absorb into dry earth or sand. Remove mechanically. Transfer to a closable, labelled salvage container for disposal by an appropriate method. Neutralise residue with soda and rinse with plenty of water.

6.4. Reference to other sections

Reference to other sections: Refer to section 8 of SDS.

Section 7: Handling and storage

7.1. Precautions for safe handling

Handling requirements: Avoid direct contact with the substance. Wear protective gloves, eye and face protection. Ensure there is sufficient ventilation of the area. Do not handle in a confined space. Smoking, eating and drinking should be prohibited in mixing and application area. Avoid direct contact with the substance. Avoid the formation or spread of mists in the air. Always wash your hands before eating, smoking or using the toilet.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Store in a cool, well ventilated area. Keep out of reach of children. Keep container tightly closed. Observe label precautions.

Suitable packaging: Must only be kept in original packaging.

7.3. Specific end use(s)

Specific end use(s): The identified uses of this product are detailed in section 1. Refer to Application Instructions before using this product. Acid Component Part A for Use with Fire Varnish Resin Base Part B.

Section 8: Exposure controls/personal protection

8.1. Control parameters
Hazardous ingredients:

**ALUMINIUM TRIS(DIHYDROGEN PHOSPHATE)**

<table>
<thead>
<tr>
<th>Workplace exposure limits:</th>
<th>Respirable dust</th>
</tr>
</thead>
<tbody>
<tr>
<td>State</td>
<td>8 hour TWA</td>
</tr>
<tr>
<td>EU</td>
<td>2 mg/m3</td>
</tr>
</tbody>
</table>

**2-PHENOXYETHANOL**

<table>
<thead>
<tr>
<th>State</th>
<th>Value</th>
<th>Population</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>UK</td>
<td>110 mg/m3</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**ORTHOPHOSPHORIC ACID...100%**

<table>
<thead>
<tr>
<th>State</th>
<th>Value</th>
<th>Population</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>UK</td>
<td>1 mg/m3</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>EU</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**DNEL/PNEC Values**

Hazardous ingredients:

**ALUMINIUM TRIS(DIHYDROGEN PHOSPHATE)**

<table>
<thead>
<tr>
<th>Type</th>
<th>Exposure</th>
<th>Value</th>
<th>Population</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>DNEL</td>
<td>Inhalation</td>
<td>4.07 mg/m3</td>
<td>Workers</td>
<td>Systemic</td>
</tr>
<tr>
<td>DNEL</td>
<td>Inhalation</td>
<td>3.04 mg/m3</td>
<td>Consumers</td>
<td>Systemic</td>
</tr>
<tr>
<td>PNEC</td>
<td>Fresh water</td>
<td>0.032725 mg/l</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>PNEC</td>
<td>Marine water</td>
<td>0.0032725 mg/l</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**2-PHENOXYETHANOL**

<table>
<thead>
<tr>
<th>Type</th>
<th>Exposure</th>
<th>Value</th>
<th>Population</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>DNEL</td>
<td>Dermal</td>
<td>34.72 mg/kg/day</td>
<td>Workers</td>
<td>Systemic</td>
</tr>
<tr>
<td>DNEL</td>
<td>Inhalation</td>
<td>8.07 mg/m3</td>
<td>Workers</td>
<td>Systemic</td>
</tr>
<tr>
<td>DNEL</td>
<td>Inhalation</td>
<td>8.07 mg/m3</td>
<td>Workers</td>
<td>Local</td>
</tr>
<tr>
<td>DNEL</td>
<td>Oral</td>
<td>17.43 mg/kg/day</td>
<td>Consumers</td>
<td>Systemic</td>
</tr>
<tr>
<td>DNEL</td>
<td>Dermal</td>
<td>20.83 mg/kg/day</td>
<td>Consumers</td>
<td>Systemic</td>
</tr>
<tr>
<td>DNEL</td>
<td>Inhalation</td>
<td>2.41 mg/m3</td>
<td>Consumers</td>
<td>Systemic</td>
</tr>
<tr>
<td>DNEL</td>
<td>Oral</td>
<td>17.43 mg/kg/day</td>
<td>Consumers</td>
<td>Systemic</td>
</tr>
<tr>
<td>PNEC</td>
<td>Fresh water</td>
<td>0.943 mg/l</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>PNEC</td>
<td>Marine water</td>
<td>0.094 mg/l</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>PNEC</td>
<td>Fresh water sediments</td>
<td>7.23 mg/kg</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>PNEC</td>
<td>Marine sediments</td>
<td>0.723 mg/kg</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>PNEC</td>
<td>Soil (agricultural)</td>
<td>1.26 mg/kg</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**ORTHOPHOSPHORIC ACID...100%**

<table>
<thead>
<tr>
<th>Type</th>
<th>Exposure</th>
<th>Value</th>
<th>Population</th>
<th>Effect</th>
</tr>
</thead>
</table>

[cont...]
SAFETY DATA SHEET
FIRE VARNISH ACTIVATOR NG

8.2. Exposure controls

Engineering measures: Ensure there is sufficient ventilation of the area.

Respiratory protection: in case of insufficient ventilation suitable respiratory equipment should be used

Respiratory protection must be used if the general level exceeds the recommended

occupational exposure limit Air fed mask fitted with appropriate filters must be used when

spraying. Self-contained breathing apparatus must be available in case of emergency.

Hand protection: Impermeable gloves. the instructions and information provided by the glove

manufacturer on use storage maintenance and replacement must be followed

Eye protection: Safety glasses with side-shields. manufactured and tested to EN 166and designed to

protect against splashes Ensure eye bath is to hand.

Skin protection: Impermeable protective clothing.

Environmental: Prevent from entering in public sewers or the immediate environment. Handle in

accordance with good industrial hygiene and safety practices

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

State: Liquid

Colour: Dark brown

Odour: Characteristic odour

Evaporation rate: not determined

Solubility in water: dispersible in water

Boiling point/range°C: 100

Melting point/range°C: No data available.

Flammability limits %: lower: No data available.

upper: No data available.

Flash point°C: No data available.

Part.coeff. n-octanol/water: No data available.

Autoflammability°C: No data available.

Relative density: 1.35 -1.45

pH: 1-2

9.2. Other information

Other information: Refer to Fire Varnish Application instructions before using Pot life when mixed

approximately 2 hours dependant on Temperature,Humidity and season of the year

Section 10: Stability and reactivity

10.1. Reactivity

Reactivity: Stable under recommended transport or storage conditions.
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FIRE VARNISH ACTIVATOR NG

Page: 7

10.2. Chemical stability

Chemical stability: Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions: Hazardous reactions will not occur under normal transport or storage conditions. Decomposition may occur on exposure to conditions or materials listed below.

10.4. Conditions to avoid

Conditions to avoid: Heat.

10.5. Incompatible materials

Materials to avoid: Strong oxidising agents. Strong bases. exothermic reaction

10.6. Hazardous decomposition products

Haz. decomp. products: In combustion emits toxic fumes.

Section 11: Toxicological information

11.1. Information on toxicological effects

Hazardous ingredients:

2-PHENOXYETHANOL

<table>
<thead>
<tr>
<th>Route</th>
<th>Hazardous ingredients</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORL MUS LD50</td>
<td>933 mg/kg</td>
<td>Hazardous: calculated</td>
</tr>
<tr>
<td>ORL RAT LD50</td>
<td>1260 mg/kg</td>
<td>Hazardous: calculated</td>
</tr>
<tr>
<td>SKN RAT LD50</td>
<td>14422 mg/kg</td>
<td>Hazardous: calculated</td>
</tr>
</tbody>
</table>

ORTHOPHOSPHORIC ACID...100%

<table>
<thead>
<tr>
<th>Route</th>
<th>Hazardous ingredients</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORL RAT LD50</td>
<td>1530 mg/kg</td>
<td>Hazardous: calculated</td>
</tr>
</tbody>
</table>

Relevant hazards for product:

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Route</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin corrosion/irritation</td>
<td>DRM</td>
<td>Hazardous: calculated</td>
</tr>
<tr>
<td>Serious eye damage/irritation</td>
<td>OPT</td>
<td>Hazardous: calculated</td>
</tr>
</tbody>
</table>

Symptoms / routes of exposure

Skin contact: Irritation or pain may occur at the site of contact. Blistering may occur.

Eye contact: Splashes in the eye May cause permanent damage.

Ingestion: Corrosive burns may appear around the lips. Corrosive - even small amounts can cause serious damage.

Inhalation: There may be shortness of breath with a burning sensation in the throat. Exposure may cause coughing or wheezing.

Delayed / immediate effects: Immediate effects can be expected after short-term exposure.

Other information: In all cases of doubt or where symptoms persist obtain medical attention formaldehyde
Section 12: Ecological information

12.1. Toxicity

Ecotoxicity values: No data available.

12.2. Persistence and degradability

Persistence and degradability: No data available.

12.3. Bioaccumulative potential

Bioaccumulative potential: No data available.

12.4. Mobility in soil

Mobility: No data available.

12.5. Results of PBT and vPvB assessment

PBT identification: This product is not identified as a PBT/vPvB substance.

12.6. Other adverse effects

Other adverse effects: No data available.

Section 13: Disposal considerations

13.1. Waste treatment methods

Disposal operations: Transfer to a suitable container and arrange for collection by specialised disposal company.

Waste code number: 08 01 12

Disposal of packaging: Drained and rigorously scraped out empty containers are controlled wastes and should be disposed of according with the regulations made under the Control of Pollution Act and Environmental Protection Act

NB: The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

Section 14: Transport information

14.1. UN number

UN number: UN3265

14.2. UN proper shipping name

Shipping name: Corrosive liquid, Acidic Organic, n.o.s. (Phosphoric Acid propyl ester, Phosphoric Acid

14.3. Transport hazard class(es)

Transport class: 8

[cont...]

is released during curing. It is irritating to the mucous membranes and may cause skin sensitisation.
14.4. Packing group

Packing group: 111

14.5. Environmental hazards

Environmentally hazardous: No  
Marine pollutant: No

14.6. Special precautions for user

Special precautions: Always transport in upright sealed containers Ensure that persons transporting the product what to do in the event of an accident or spillage

Tunnel code: E

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Transport in bulk: not Relevant

Section 15: Regulatory information

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

Specific regulations: The provisions of the Health and Safety at Work Act and the Control of Substances Hazardous to Health Regulations apply to this product

15.2. Chemical Safety Assessment

Chemical safety assessment: A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

Section 16: Other information

Other information: This safety data sheet has been prepared in accordance with Regulation(EC) No 1907/2006 REACH

This safety data sheet is prepared in accordance with Commission Regulation (EC) No 1272/2008.

* indicates text in the SDS which has changed since the last revision.

Phrases used in s.2 and s.3:

H290: May be corrosive to metals.
H302: Harmful if swallowed.
H314: Causes severe skin burns and eye damage.
H315: Causes skin irritation.
H318: Causes serious eye damage.
H319: Causes serious eye irritation.
H373: May cause damage to organs <or state all organs affected, if known> through prolonged or repeated exposure <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.
H411: Toxic to aquatic life with long lasting effects.

Legal disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.