SAFETY DATA SHEET
HIGH TEMPERATURE ALUMINIUM PAINT

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name: HIGH TEMPERATURE ALUMINIUM PAINT
Product No.: 445/Q303/5

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

Identified uses: Paint.

1.3. Details of the supplier of the safety data sheet

Supplier: TEAL & MACKRILL LIMITED
LOCKWOOD STREET
HULL
HU2 0HN
+44(0)1482 320194(T)
+44(0)1482 219266(F)
info@teamac.co.uk

Contact Person: Technical Department - 08.30 - 16.30 hrs Mon - Thurs, 08.30 - 15.00 hrs Fri as above

1.4. Emergency telephone number

+44 (0) 1482 320194 (08.30 - 16.30 hrs Mon - Thurs, 08.30 - 15.00 hrs Fr.)

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture


2.2. Label elements

Contains: XYLENE, MIXED ISOMERS
Labelling: Harmful

Risk Phrases:
R10 Flammable.
R20/21 Harmful by inhalation and in contact with skin.
R36/37/38 Irritating to eyes, respiratory system and skin.
R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety Phrases:
S2 Keep out of the reach of children.
S13 Keep away from food, drink and animal feeding stuffs.
S24/25 Avoid contact with skin and eyes.
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37 Wear suitable protective clothing and gloves.
S46 If swallowed, seek medical advice immediately and show this container or label.
S51 Use only in well-ventilated areas.
2.3. Other hazards

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

<table>
<thead>
<tr>
<th>XYLENE, MIXED ISOMERS</th>
<th>30-60%</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS-No.: 1330-20-7</td>
<td></td>
</tr>
<tr>
<td>EC No.: 215-535-7</td>
<td></td>
</tr>
<tr>
<td>Registration Number:</td>
<td></td>
</tr>
<tr>
<td>01-2119488216-32-xxxx</td>
<td></td>
</tr>
<tr>
<td>Classification (67/548/EEC)</td>
<td></td>
</tr>
<tr>
<td>Xn;R20,R65.</td>
<td></td>
</tr>
<tr>
<td>Xi;R36/37/38.</td>
<td></td>
</tr>
<tr>
<td>R10.</td>
<td></td>
</tr>
<tr>
<td>Classification (EC 1272/2008)</td>
<td></td>
</tr>
<tr>
<td>Flam. Liq. 3 - H226</td>
<td></td>
</tr>
<tr>
<td>Acute Tox. 4 - H312</td>
<td></td>
</tr>
<tr>
<td>Acute Tox. 4 - H332</td>
<td></td>
</tr>
<tr>
<td>Skin Irrit. 2 - H315</td>
<td></td>
</tr>
<tr>
<td>Eye Irrit. 2 - H319</td>
<td></td>
</tr>
<tr>
<td>STOT SE 3 - H335</td>
<td></td>
</tr>
<tr>
<td>STOT RE 2 - H373</td>
<td></td>
</tr>
<tr>
<td>Asp. Tox. 1 - H304</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Petroleum solvent naphtha, heavy aromatic / C9 aromatic solvent mixture</th>
<th>1-5%</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS-No.:</td>
<td></td>
</tr>
<tr>
<td>EC No.:</td>
<td></td>
</tr>
<tr>
<td>Classification (EC 1272/2008)</td>
<td></td>
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<tr>
<td>Flam. Liq. 3 - H226</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Skin Irrit. 2 - H315</td>
<td></td>
</tr>
<tr>
<td>Eye Irrit. 2 - H319</td>
<td></td>
</tr>
<tr>
<td>STOT SE 3 - H335</td>
<td></td>
</tr>
<tr>
<td>STOT RE 2 - H373</td>
<td></td>
</tr>
<tr>
<td>Asp. Tox. 1 - H304</td>
<td></td>
</tr>
<tr>
<td>Aquatic Chronic 2 - H411</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ISO-BUTANOL</th>
<th>1-5%</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS-No.: 78-83-1</td>
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</tr>
<tr>
<td>EC No.: 201-148-0</td>
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<tr>
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<tr>
<td>Skin Irrit. 2 - H315</td>
<td></td>
</tr>
<tr>
<td>Eye Dam. 1 - H318</td>
<td></td>
</tr>
<tr>
<td>STOT SE 3 - H335</td>
<td></td>
</tr>
<tr>
<td>STOT SE 3 - H336</td>
<td></td>
</tr>
</tbody>
</table>

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General information

General first aid, rest, warmth and fresh air. Do not give victim anything to drink if they are unconscious.

Inhalation

Remove victim immediately from source of exposure. Provide rest, warmth and fresh air. Get medical attention if any discomfort continues. Place unconscious person on the side in the recovery position and ensure breathing can take place.
HIGH TEMPERATURE ALUMINIUM PAINT

Ingestion
DO NOT induce vomiting. Get medical attention immediately. Provide fresh air, warmth and rest, preferably in comfortable upright sitting position.

Skin contact
Remove affected person from source of contamination. Remove contaminated clothing immediately and wash skin with soap and water.

Eye contact
Make sure to remove any contact lenses from the eyes before rinsing. Continue to rinse for at least 15 minutes and get medical attention.

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

General information
If adverse symptoms develop as described the casualty should be transferred to hospital as soon as possible.

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

No specific first aid measures noted.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Extinguish with foam, carbon dioxide, dry powder or water fog. Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Unusual Fire & Explosion Hazards
FLAMMABLE. Solvent vapours may form explosive mixtures with air.

Specific hazards
When heated and in case of fire, harmful vapours/gases may be formed.

5.3. Advice for firefighters

Special Fire Fighting Procedures
Be aware of danger for fire to re-start. Cool containers exposed to flames with water until well after the fire is out. Do not allow runoff to sewer, waterway or ground.

Protective equipment for fire-fighters
Selection of respiratory protection for fire fighting; follow the general fire precautions indicated in the workplace.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Avoid inhalation of vapours and contact with skin and eyes. Provide adequate ventilation. Do not smoke, use open fire or other sources of ignition. Ensure suitable personal protection (including respiratory protection) during removal of spillages in a confined area.

6.2. Environmental precautions

Avoid discharge into drains, water courses or onto the ground. Contain spillages with sand, earth or any suitable adsorbent material. Spillages or uncontrolled discharges into watercourses must be IMMEDIATELY alerted to the Environmental Agency or other appropriate regulatory body.

6.3. Methods and material for containment and cleaning up

Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate. Should be prevented from entering drains. Absorb in vermiculite, dry sand or earth and place into containers. Collect spillage in containers, seal securely and deliver for disposal according to local regulations.

6.4. Reference to other sections

For personal protection, see section 8.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Observe occupational exposure limits and minimise the risk of inhalation of vapours and mist. Keep away from heat, sparks and open flame. Avoid spilling, skin and eye contact. Ventilate well, avoid breathing vapours. Use approved respirator if air contamination is above accepted level. Do not eat, drink or smoke when using the product. The Manual Handling Operations Regulations may apply to the handling of containers of this product. To assist employers, the following method of calculating the weight for any pack size is given. Take the pack size volume in litres and multiply this figure by the specific gravity value given in section 9. This will give the net weight of the coating in kilograms. Allowance will then have to be made for the immediate packaging to give an approximate gross weight.
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7.2. Conditions for safe storage, including any incompatibilities


Storage Class

Flammable liquid storage. The storage and use of this product is subject to the Dangerous Substances and Explosive Atmospheres Regulations (DSEAR). The requirements are given in the HSE Approved Code of Practice and Guidance, Storage of Danderous Substances: DSEAR. Up to 50 litres of liquids with a flashpoint below 32°C may be kept in a workroom provided they are kept in closed containers in a marked, fire-resisting cupboard or bin. Larger quantities must be kept in a separate, marked storeroom conforming to the structural requirements contained in the HSE guidance note Storage of Flammable Liquids in Containers.

7.3. Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

Usage Description

Ensure that waste and contaminated materials are collected and removed from the work area as soon as possible in a suitably labelled container.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>STD</th>
<th>TWA - 8 Hrs</th>
<th>STEL - 15 Min</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISO-BUTANOL</td>
<td>WEL</td>
<td>50 ppm</td>
<td>154 mg/m³</td>
<td></td>
</tr>
<tr>
<td>Petroleum solvent naphtha, heavy aromatic / C9 aromatic solvent mixture</td>
<td>OEL</td>
<td>50 ppm</td>
<td>250 mg/m³</td>
<td></td>
</tr>
<tr>
<td>XYLENE, MIXED ISOMERS</td>
<td>WEL</td>
<td>50 ppm</td>
<td>220 mg/m³</td>
<td>Sk</td>
</tr>
</tbody>
</table>

WEL = Workplace Exposure Limit.
OEL = Occupational Exposure Limit.
Sk = Can be absorbed through skin.

XYLENE, MIXED ISOMERS [CAS: 1330-20-7]

<table>
<thead>
<tr>
<th>Name</th>
<th>Consumer</th>
<th>Oral</th>
<th>Long Term</th>
<th>Systemic Effects</th>
<th>Consumer Oral Long Term Systemic Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Dermal</td>
<td></td>
<td>Long Term</td>
<td>Systemic Effects</td>
<td>Dermal Long Term Systemic Effects</td>
</tr>
<tr>
<td></td>
<td>Inhalation</td>
<td></td>
<td>Short Term</td>
<td>Systemic Effects</td>
<td>Inhalation Short Term Systemic Effects</td>
</tr>
<tr>
<td>Industry</td>
<td>Dermal</td>
<td></td>
<td>Long Term</td>
<td>Systemic Effects</td>
<td>Industry Dermal Long Term Systemic Effects</td>
</tr>
<tr>
<td>Industry</td>
<td>Inhalation</td>
<td></td>
<td>Short Term</td>
<td>Systemic Effects</td>
<td>Industry Inhalation Short Term Systemic Effects</td>
</tr>
</tbody>
</table>

No PNEC available. Substance is a hydrocarbon UVCB. Standard tests for this endpoint are intended for single substances and are not appropriate for the risk assessment of this complex substance.

8.2. Exposure controls

Protective equipment

<p>| |</p>
<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

Engineering measures

Provide adequate ventilation, including appropriate local extraction, to ensure that the defined occupational exposure limit is not exceede.

Respiratory equipment

No specific recommendation made, but respiratory protection must be used if the general level exceeds the recommended occupational exposure limit.

Hand protection

Use suitable protective gloves if risk of skin contact. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material. Barrier cream applied before work may make it easier to clean the skin after exposure, but does not prevent absorption through the skin.

Eye protection

Wear splash-proof eye goggles to prevent any possibility of eye contact.

Other Protection

Wear appropriate clothing to prevent reasonably probable skin contact.
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Hygiene measures
No specific hygiene procedures noted, but good personal hygiene practices are always advisable, especially when working with chemicals.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Viscous liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>Silver</td>
</tr>
<tr>
<td>Odour</td>
<td>Characteristic. of solvents</td>
</tr>
<tr>
<td>Solubility</td>
<td>Immiscible with water</td>
</tr>
<tr>
<td>Relative density</td>
<td>0.95 - 1.20 @20 °C</td>
</tr>
<tr>
<td>Vapour density (air=1)</td>
<td>heavier than air</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>not determined</td>
</tr>
<tr>
<td>pH-Value, Conc. Solution</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Viscosity</td>
<td>1 to 5 (ICI C&amp;P) Ps @ 25C</td>
</tr>
<tr>
<td>Decomposition temperature (°C)</td>
<td>Not determined</td>
</tr>
<tr>
<td>Flash point</td>
<td>23 °C to 32 °C CC (Closed cup)</td>
</tr>
<tr>
<td>Flammability Limit - Lower(%)</td>
<td>0.8 % v/v</td>
</tr>
</tbody>
</table>

9.2. Other information

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volatility Description</td>
<td>Emits vapours, especially during heating.</td>
</tr>
<tr>
<td>Volatile By Vol. (%)</td>
<td>20 - 25</td>
</tr>
<tr>
<td>Volatile Organic Compound (VOC)</td>
<td>&lt;600 g/litre</td>
</tr>
</tbody>
</table>

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity
No specific reactivity hazards associated with this product.

10.2. Chemical stability
Stable under normal temperature conditions and recommended use.

10.3. Possibility of hazardous reactions
Not determined.

10.4. Conditions to avoid
Avoid heat, flames and other sources of ignition. Avoid contact with acids and oxidising substances.

10.5. Incompatible materials
Materials To Avoid

10.6. Hazardous decomposition products
Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Inhalation
Vapour from this chemical can be hazardous when inhaled. Vapour may irritate respiratory system or lungs.

Ingestion
Liquid irritates mucous membranes and may cause abdominal pain if swallowed.
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Skin contact
Acts as a defatting agent on skin. May cause cracking of skin, and eczema. Prolonged or repeated exposure may cause severe irritation.

Eye contact
May cause temporary eye irritation.

Health Warnings
This product has low toxicity. Only large volumes may have adverse impact on human health.

Route of entry
Inhalation. Skin absorption. Ingestion. Skin and/or eye contact.

Medical Considerations
Skin disorders and allergies. Avoid vomiting and normal rinse of stomach because of risk of aspiration.

Toxicological information on ingredients.

**XYLENE, MIXED ISOMERS (CAS: 1330-20-7)**

**Acute toxicity:**
Acute Toxicity (Oral LD50)
4300 mg/kg Rat

Acute Toxicity (Dermal LD50)
> 1700 mg/kg Rabbit

Acute Toxicity (Inhalation LC50)
5000 ppmV (gas) Rat 4 hours

**Serious eye damage/irritation:**
Severe skin irritant; irritation of eyes is assumed. No testing is needed.

**Respiratory or skin sensitisation:**
Not sensitising.

Carcinogenicity:
This substance has no evidence of carcinogenic properties.

**Reproductive Toxicity:**
This substance has no evidence of toxicity to reproduction.

**Aspiration hazard:**
Viscosity
Kinematic viscosity <= 20.5 mm²/s.
Inhalation
Harmful by inhalation.
Ingestion
Pneumonia may be the result if vomited material containing solvents reaches the lungs.
Skin contact
Harmful in contact with skin.

**SECTION 12: ECOLOGICAL INFORMATION**

Ecotoxicity
The product contains a substance which is harmful to aquatic organisms and which may cause long term adverse effects in the aquatic environment.
HIGH TEMPERATURE ALUMINIUM PAINT

Ecological information on ingredients.

XYLENE, MIXED ISOMERS (CAS: 1330-20-7)

Ecotoxicity
The product is not expected to be hazardous to the environment.

12.1. Toxicity

Ecological information on ingredients.

XYLENE, MIXED ISOMERS (CAS: 1330-20-7)

LC 50, 96 Hrs, Fish mg/l
2.6
EC 50, 48 Hrs, Daphnia, mg/l
3.62
IC 50, 72 Hrs, Algae, mg/l
3.2

12.2. Persistence and degradability

Degradability
The product is not expected to be biodegradable.

Ecological information on ingredients.

XYLENE, MIXED ISOMERS (CAS: 1330-20-7)

Degradability
The product is easily biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential
The product contains potentially bioaccumulating substances.

Ecological information on ingredients.

XYLENE, MIXED ISOMERS (CAS: 1330-20-7)

Partition coefficient
log Kow 3.12 - 3.2

12.4. Mobility in soil

Mobility:
The product contains volatile organic compounds (VOC) which will evaporate easily from all surfaces.

12.5. Results of PBT and vPvB assessment

Ecological information on ingredients.

XYLENE, MIXED ISOMERS (CAS: 1330-20-7)

Not Classified as PBT/vPvB by current EU criteria.

12.6. Other adverse effects

The product contains volatile, organic compounds which have a photochemical ozone creation potential.

SECTION 13: DISPOSAL CONSIDERATIONS

General information
Do not allow to enter drains, sewers or watercourses.

13.1. Waste treatment methods

Dispose of waste and residues in accordance with local authority requirements.
HIGH TEMPERATURE ALUMINIUM PAINT

Waste Class
When this coating, in its liquid state, as supplied, becomes a waste, it is categorised as hazardous waste, with code 08 01 11* (SOLVENT BASED LIQUID WASTE). Part-used containers, not drained and/or rigorously scraped out and containing dried residues of the supplied coating, are categorised as hazardous waste, with code 08 01 11* (SOLVENT BASED LIQUID WASTE). If mixed with other wastes, the above waste code may not be applicable. Used containers, drained and/or rigorously scraped out and containing dry residues of the supplied coating, are categorised as non-hazardous waste, with code 15 01 02 (plastic packaging) or 15 01 04 (metal packaging).

SECTION 14: TRANSPORT INFORMATION

General
This product is packed in accordance with the Limited Quantity Provisions of CDGCPL2, ADR and IMDG.

14.1. UN number
UN No. (ADR/RID/ADN) 1263
UN No. (IMDG) 1263
UN No. (ICAO) 1263

14.2. UN proper shipping name
Proper Shipping Name Contains 1, 2, 4-Trimethylbenzene, Class 3, PG III, (41 °C c.c.) MARINE POLLUTANT
Proper Shipping Name PAINT

14.3. Transport hazard class(es)
ADR/RID/ADN Class 1263
ADR/RID/ADN Class Class 3: Flammable liquids.
IMDG Class 3
ICAO Class/Division 3

14.4. Packing group
ADR/RID/ADN Packing group III
IMDG Packing group III
ICAO Packing group III

14.5. Environmental hazards
Environmentally Hazardous Substance/Marine Pollutant

14.6. Special precautions for user
EMS F-E, S-E
Tunnel Restriction Code (D/E)

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
Not applicable.
HIGH TEMPERATURE ALUMINIUM PAINT

SECTION 15: REGULATORY INFORMATION

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

Uk Regulatory References
The Control of Substances Hazardous to Health Regulations 2002 (S.I 2002 No. 2677) with amendments.
Statutory Instruments
Approved Code Of Practice
Safety Data Sheets for Substances and Preparations. Classification and Labelling of Substances and Preparations Dangerous for Supply.
Dangerous Substances and Explosive Atmospheres Regulations 2002 [L138]
Guidance Notes
Workplace Exposure Limits EH40. CHIP for everyone HSG(108).
EU Legislation
National Regulations

15.2. Chemical Safety Assessment

No chemical safety assessment has been carried out.

SECTION 16: OTHER INFORMATION

Revision Comments
Issued in new format for Reach compliance in accordance with EC 1272/2008 Issued in accordance with Annex II to REACH, as amended by Commission Regulation (EU) No. 453/2010 Revision to sections 2, 8, 11 & 12 for reclassification of solvents. Revisions to Sections (2), (3), (8), (15), and (16) - re-classification of resin components.
Issued By Technical Dept. (P.E.)
Revision Date 07/11/2012
Revision 7
Supersedes date 12/07/2010
SDS No. 10673
Safety Data Sheet Status Approved.
Date Date Printed________________
Signature Initials__________________
Risk Phrases In Full
R10 Flammable.
R20/21 Harmful by inhalation and in contact with skin.
R20 Harmful by inhalation.
R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R65 Harmful: may cause lung damage if swallowed.
R36/37/38 Irritating to eyes, respiratory system and skin.
R37/38 Irritating to respiratory system and skin.
R41 Risk of serious damage to eyes.
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R67 Vapours may cause drowsiness and dizziness.
HIGH TEMPERATURE ALUMINIUM PAINT

Hazard Statements In Full

H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H315 Causes skin irritation.
H226 Flammable liquid and vapour.
H332 Harmful if inhaled.
H312 Harmful in contact with skin.
H412 Harmful to aquatic life with long lasting effects.
H304 May be fatal if swallowed and enters airways.
H373 May cause damage to organs <Organs> through prolonged or repeated exposure if inhaled.
H336 May cause drowsiness or dizziness.
H335 May cause respiratory irritation.
H411 Toxic to aquatic life with long lasting effects.

Disclaimer

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.