HAMMERITE DIRECT TO RUST METAL PAINT SMOOTH

SAFETY DATA SHEET

Revision 04/2010

1. IDENTIFICATION OF THE PREPARATION AND COMPANY

PRODUCT NAME : Hammerite Direct To Rust Metal Paint Smooth

Supplied by : ICI Paints AkzoNobel, Wexham Road, Slough, Berkshire, SL2 5DS, U.K.
E-mail address : duluxtrade_advice@ici.com
Emergency Telephone : Slough +44 (0) 1753 550000

INTENDED USE
ICI Paints AkzoNobel's decorative products are intended for use in the decoration of buildings surfaces. Refer to product label for details of areas of use and methods of application.

2. HAZARDS IDENTIFICATION

This product has been assessed under the CHIP Regulations and is classified as follows:

Indication(s) of Danger
None

Symbol Letter(s)
None

Category(ies) of Danger
Flammable, Dangerous For The Environment

Warning Label Phrases

R10 Flammable.

R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R66 Repeated exposure may cause skin dryness or cracking.

Contains COBALT CARBOXYLATE, ETHYL METHYL KETOXIME. May produce an allergic reaction.
Information on Occupational Exposure Limits is given in Section 8.

3. COMPOSITION/INFORMATION ON INGREDIENTS
Substances presenting a physico-chemical, health or environmental hazard within the meaning of the CHIP Regulations or which are assigned occupational exposure limits.

<table>
<thead>
<tr>
<th>EC No.</th>
<th>CAS No.</th>
<th>HAZARDOUS INGREDIENTS</th>
<th>%</th>
<th>CLASSIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>265-150-3</td>
<td>64742-48-9</td>
<td>NAPHTHA (PETROLEUM), HYDROTREATED HEAVY</td>
<td>25-50</td>
<td>Xn</td>
</tr>
<tr>
<td>231-944-3</td>
<td>7779-90-0</td>
<td>ZINC PHOSPHATE PIGMENT</td>
<td>1.0-2.5</td>
<td>N</td>
</tr>
<tr>
<td>265-150-3</td>
<td>64742-48-9</td>
<td>NAPHTHA (PETROLEUM), HYDROTREATED HEAVY</td>
<td>1.0-2.5</td>
<td>Xn</td>
</tr>
<tr>
<td>271-376-3</td>
<td>68551-41-7</td>
<td>CALCIUM CARBOXYLATE</td>
<td>1.0-2.5</td>
<td>Xi</td>
</tr>
<tr>
<td>202-496-6</td>
<td>96-29-7</td>
<td>ETHYL METHYL KETOXIME</td>
<td>&lt; 1.0</td>
<td>Xn</td>
</tr>
<tr>
<td></td>
<td></td>
<td>COBALT CARBOXYLATE</td>
<td>&lt; 1.0</td>
<td>N, Xn</td>
</tr>
</tbody>
</table>

Note: The text for R phrase codes shown above (if any) is given in section 16.
Note: 'EC Number' if quoted is the EINECS or ELINCS number.

4. FIRST-AID MEASURES
In all cases of doubt, or where symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

INHALATION: Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped administer artificial respiration. Give nothing by mouth. If unconscious place in the recovery position. Seek medical advice.

EYE CONTACT: Remove contact lenses. Irrigate copiously with clean, fresh water for at least 10 minutes, holding lids apart. Seek medical advice.

SKIN CONTACT: Remove contaminated clothing, wash skin thoroughly with soap and water, or use a proprietary skin cleanser. Do not use solvents or thinners. Seek medical advice if symptoms persist.

INGESTION: If accidentally swallowed, DO NOT INDUCE VOMITING. Keep at rest and obtain medical attention.

5. FIRE-FIGHTING MEASURES
Extinguishing media: Recommended - alcohol resistant foam, CO2, powders.
Not to be used - waterjet.
Recommendations: Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard. Fire fighters should wear self-contained breathing apparatus.
Closed containers exposed to fire should be cooled with water. Do not allow run-off from fire-fighting to enter drains or water-courses.
6. ACCIDENTAL RELEASE MEASURES

Exclude non-essential personnel.

Exclude sources of ignition and ventilate the area. Avoid breathing vapours. Refer to protective measures listed in section 8. Contain and collect spillage with non-combustible absorbent materials, eg sand, earth, vermiculite or diatomaceous earth, and place in container for disposal according to local regulations (see section 13). Do not allow to enter drains or watercourses. Clean preferably with a detergent; avoid use of solvents. If the product enters drains or sewers, immediately contact the local water company; in the case of contamination of streams, rivers or lakes, the relevant environment agency.

7. HANDLING AND STORAGE

Persons with a history of skin sensitisation problems which are related to substances listed in section 3 of this safety data sheet should only be employed in processes in which this product is used under appropriate medical supervision.

HANDLING CONDITIONS: Vapours are heavier than air and may spread along floors. They may form explosive mixtures with air. Prevent the creation of flammable or explosive concentrations of vapour in air and avoid vapour concentrations higher than the occupational exposure limits. In addition, the product should only be used in areas from which all naked lights and other sources of ignition have been excluded. Electrical equipment should be protected by the appropriate standard. Keep the container tightly closed. Exclude sources of heat, sparks and open flame. Non-sparking tools should be used. Avoid skin and eye contact. Avoid the inhalation of vapour and mist. Smoking, eating and drinking should be prohibited in storage and use areas. For personal protective equipment see Section 8. Always keep in containers made of the same material as the supply container, or in containers that are compatible with the product. The accumulation of contaminated rags may result in spontaneous combustion. Good housekeeping standards and regular safe removal of waste materials will minimise the risks of spontaneous combustion and other fire hazards.

STORAGE CONDITIONS: Observe the label precautions. Store in a cool, dry, well ventilated place away from sources of heat, ignition and direct sunlight. No smoking. Prevent unauthorised access. Containers which are opened should be properly resealed and kept upright to prevent leakage. Do not use or store any paint container by hanging on a hook.

The Manual Handling Operations Regulations 1993 may apply to the handling of certain Paint Products. Products packed in containers of 5 litres and above will be marked with a guide weight; refer to these weights when carrying out an assessment.

For flash points between 21 and 32 degrees Celsius store in accordance with the Highly Flammable Liquids and Liquefied Petroleum Gas Regulations 1972.

The principles contained in the HSE guidance note Storage of Packaged Dangerous Substances, should be observed when storing this product. Store separately from oxidising agents, strongly alkaline and strongly acidic materials, amines, alcohols and water.

SPECIFIC USE(s): Where applicable refer to the product label and literature for the application and use instructions.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE LIMIT VALUES

<table>
<thead>
<tr>
<th>HAZARDOUS INGREDIENT</th>
<th>LTEL (8hr TWA) ppm</th>
<th>LTEL (8hr TWA) mg/m3</th>
<th>STEL (15 mins) ppm</th>
<th>STEL (15 mins) mg/m3</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAPHTHA (PETROLEUM), HYDROTREATED HEAVY</td>
<td>1000</td>
<td>OEL</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NAPHTHA (PETROLEUM), HYDROTREATED HEAVY</td>
<td>1000</td>
<td>OEL</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ETHYL METHYL KETOXIME</td>
<td>3</td>
<td>10</td>
<td>SUP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>COBALT CARBOXYLATE</td>
<td>0.1</td>
<td>WEL</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

OEL - Occupational Exposure Limits
WEL - Workplace Exposure Limit
SUP - Manufacturer's recommended Limit
LTEL - Long-term Exposure Limit.
TWA - Time weighted Average
STEL - Short term Exposure Limit (15mins)
Extra precautions will need to be taken when burning off old lead based paints (see above - "flattening" for relevance to work on.

Respiratory protective equipment should be used wherever possible. If exposure cannot be avoided by the provision of local exhaust ventilation, suitable respirator is worn, that is approved for use with lead dusts, and its type selected on the basis of the occupational hygiene exposure standard for lead in air. Furthermore, steps should be taken to ensure containment of the dusts created, and that all practicable measures are taken to clean up thoroughly all deposits of dusts in and around the affected area.

The Control of Lead at Work approved code of practice 1998 (ISBN 0 71 7615065) should be consulted for advice on protective clothing and personal hygiene precautions. Care should also be taken to exclude visitors, members of the household and especially children from the affected area, during the actual work and the subsequent clean-up operations.


Where possible wet flattening or chemical stripping methods should be used with surfaces of this type to avoid the creation of dust. When dry flattening cannot be avoided, and effective local exhaust ventilation is not available, it is recommended that a dust respirator is worn, that is approved for use with lead dusts, and its type selected on the basis of the occupational hygiene (COSHH) assessment, taking into account the occupational hygiene exposure standard for lead in air. Furthermore, steps should be taken to ensure containment of the dusts created, and that all practicable measures are taken to clean up thoroughly all deposits of dusts in and around the affected area.

The Control of Lead at Work approved code of practice 1998 (ISBN 0 71 7615065) should be consulted for advice on protective clothing and personal hygiene precautions. Care should also be taken to exclude visitors, members of the household and especially children from the affected area, during the actual work and the subsequent clean-up operations.


Dry sanding, flame cutting and/or welding of the dry paint film may give rise to dust and/or hazardous fumes. Wet sanding should be used wherever possible. If exposure cannot be avoided by the provision of local exhaust ventilation, suitable respiratory protective equipment should be used.

Extra precautions will need to be taken when burning off old lead based paints (see above - "flattening" for relevance to work on.

HAND PROTECTION: Wear suitable gloves for protection against materials in section 3.

When skin exposure may occur, advice should be sought from glove suppliers on appropriate types and usage times for this product. The instructions and information provided by the glove supplier on use, storage, maintenance and replacement must be followed.

EYE PROTECTION: Eye protection designed to protect against liquid splashes should be worn.

SKIN PROTECTION: Cotton or cotton/synthetic overalls or coveralls are normally suitable. Grossly contaminated clothing should be removed and the skin washed with soap and water or a proprietary skin cleaner.

FLATTING: Protective gloves should be worn to avoid the risk of skin irritation. When surfaces are to be prepared for painting, account should be taken of the age of the property and the possibility that lead pigmented paint might be present. There is a possibility that ingestion or inhalation of scrapings or dust arising from the preparation work could cause health effects. As a working rule you should assume that this will be the case if the age of the property is pre 1960.

Where possible wet flattening or chemical stripping methods should be used with surfaces of this type to avoid the creation of dust. When dry flattening cannot be avoided, and effective local exhaust ventilation is not available, it is recommended that a dust respirator is worn, that is approved for use with lead dusts, and its type selected on the basis of the occupational hygiene (COSHH) assessment, taking into account the occupational hygiene exposure standard for lead in air. Furthermore, steps should be taken to ensure containment of the dusts created, and that all practicable measures are taken to clean up thoroughly all deposits of dusts in and around the affected area.

The Control of Lead at Work approved code of practice 1998 (ISBN 0 717615065) should be consulted for advice on protective clothing and personal hygiene precautions. Care should also be taken to exclude visitors, members of the household and especially children from the affected area, during the actual work and the subsequent clean-up operations.


Dry sanding, flame cutting and/or welding of the dry paint film may give rise to dust and/or hazardous fumes. Wet sanding should be used wherever possible. If exposure cannot be avoided by the provision of local exhaust ventilation, suitable respiratory protective equipment should be used.

Extra precautions will need to be taken when burning off old lead based paints (see above - "flattening" for relevance to work on.
older property, ie pre 1960) as fumes containing lead will be produced. It is recommended that a respirator, approved for use with particulate fumes of lead is selected on the basis of the occupational hygiene (COSHH) assessment, taking into account the occupational hygiene exposure standard for lead in air. Similar precautions to those given above under the Flatting section should be taken with reference to protective clothing, disposal of scrapings and dusts, and exclusion of other personnel and especially children from the building during actual work and the subsequent clean up operations.

ENVIRONMENTAL EXPOSURE CONTROLS: See section 12 for detailed information.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>Liquid</td>
</tr>
<tr>
<td>Flash Point</td>
<td>32 - &lt; 35 °C</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>0.950</td>
</tr>
<tr>
<td>Water Miscibility</td>
<td>No</td>
</tr>
<tr>
<td>pH</td>
<td>No Information</td>
</tr>
<tr>
<td>Viscosity</td>
<td>&gt; 100 (ISO 6mm Range)</td>
</tr>
<tr>
<td>Initial Boiling Point in °C</td>
<td>150</td>
</tr>
<tr>
<td>Explosion limits: Lower - approx. 0.8% Upper - no information</td>
<td></td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

CONDITIONS TO AVOID: Extremes of temperature.

To prevent the creation of flammable concentrations of vapour in air, good natural ventilation, and if necessary, local exhaust ventilation, should be provided. The accumulation of dry overspray, contaminated rags, etc may result in spontaneous combustion. Good housekeeping standards plus the regular and safe removal of waste materials will minimise the risk.

MATERIALS TO AVOID: Keep away from oxidising agents, strongly alkaline and strongly acidic materials in order to avoid exothermic reactions.

HAZARDOUS DECOMPOSITION PRODUCTS: When exposed to high temperatures may produce hazardous decomposition products such as carbon monoxide and dioxide, smoke and oxides of nitrogen.

11. TOXICOLOGICAL INFORMATION

There is no data available on the product itself. The product has been assessed following the conventional method in the CHIP Regulations and is classified for toxicological hazards accordingly. This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact. See Sections 2 and 15 for details of the resulting hazard classification.

Over-exposures of vapour are irritating to eyes and respiratory system. Excessive concentrations may produce effects on the central nervous system including drowsiness. In extreme cases loss of consciousness may result. Long term exposure to vapour concentrations in excess of quoted OELs may result in adverse health effects. Splashes entering the eye will cause discomfort and possible damage. Prolonged contact with the skin may have a defatting effect which may lead to skin irritation and in some cases dermatitis.

This product contains methyl ethyl ketoxime. The classification given in Section 3 is in concurrence with Annex 1 of EU Directive 67/548/EEC. Ingestion studies in animals have shown that repeated doses have an adverse effect on the blood. A lifetime inhalation study in rats and mice produced damage to the nasal membranes and liver tumours. The relevance of the carcinogenicity findings to humans is uncertain. The new data may lead to a future reclassification of methyl ethyl ketoxime. Further studies are to be conducted.
12. ECOLOGICAL INFORMATION
There is no specific data available on the product itself. The product should not be allowed to enter drains or watercourses or be deposited where it can affect ground or surface waters. The Air Pollution Control requirements of regulations made under the Environmental Protection Act may apply to the use of this product. Products classified as Marine Pollutants are indicated as such under Transport (section 14). Products classified as Dangerous For the Environment are indicated as such in sections 2 and 15. Any substances in the product that are classified as Dangerous for the Environment, present at concentrations above those requiring listing are given in section 3.

13. DISPOSAL CONSIDERATIONS
Wastes, including emptied containers, should be disposed of in accordance with national regulations. CODES ACCORDING TO THE LIST OF WASTES REGULATIONS:
Product as supplied: Assigned as hazardous waste code 08 01 11* waste paint and varnish containing organic solvents or other dangerous substances.
Part-used containers, containing dried residues of the supplied product: Assigned as hazardous waste code 08 01 11* waste paint and varnish containing organic solvents or other dangerous substances
Used containers, rigorously scraped out and containing dried residues of the supplied product: Assigned as hazardous waste code 15 01 10* packaging containing residues of or contaminated by dangerous substances.
"Rigorously scraped out" means removing the maximum amount of product from the container by physical or mechanical means (draining or scraping) to leave a residue or contamination that cannot be removed by such means.
These codes have been assigned based on the actual composition of the product both as supplied and as dried residues. If mixed with other wastes, the waste codes quoted may not be applicable.

14. TRANSPORT INFORMATION
Transport within user's premises:
Always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.
Transport to be in accordance with ADR for road, IMDG for sea. The transport classifications provided in this section are not valid for transport by Air. Please call the number in section 1 of this safety data sheet to obtain more information on this products classification for Air transport.

ADR Classification Information

<table>
<thead>
<tr>
<th>UN Number</th>
<th>1263</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proper Shipping Name</td>
<td>PAINT</td>
</tr>
<tr>
<td>Hazard Class</td>
<td>3</td>
</tr>
<tr>
<td>Sub-Hazard Class :</td>
<td></td>
</tr>
<tr>
<td>Packing Group :</td>
<td>III</td>
</tr>
<tr>
<td>Technical Name (NOS only) :</td>
<td></td>
</tr>
<tr>
<td>Ltd Qty Code :</td>
<td>LQ7</td>
</tr>
<tr>
<td>Packing Instructions :</td>
<td>P001</td>
</tr>
</tbody>
</table>

IMDG Classification Information

<table>
<thead>
<tr>
<th>UN Number</th>
<th>1263</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proper Shipping Name</td>
<td>PAINT</td>
</tr>
<tr>
<td>Hazard Class :</td>
<td>3</td>
</tr>
<tr>
<td>Pack</td>
<td>III</td>
</tr>
<tr>
<td>Technical Name (NOS only) :</td>
<td></td>
</tr>
<tr>
<td>Ltd Qty Maximum :</td>
<td>5.0 litres</td>
</tr>
<tr>
<td>Packing Instructions :</td>
<td>P001</td>
</tr>
<tr>
<td>Marine Pollutant if indicated here:</td>
<td></td>
</tr>
<tr>
<td>Emergency Schedule No :</td>
<td>F-E,S-E</td>
</tr>
</tbody>
</table>
In pack sizes up to and including 30 litres, under the terms of 2.3.2.5, this product is not subject to the packaging, labelling and marking requirements of the IMDG Code, but both full documentation and placarding of cargo transport units is still required.

In pack sizes less than 450 litres, under the terms of 2.2.3.1.5, this product is not subject to the provisions of ADR.

15. REGULATORY INFORMATION

This product has been assessed under the CHIP Regulations and is classified as follows:

NAMED SUBSTANCES
Contains
No substances are required to be named in this section

INDICATION(S) OF DANGER
None

SYMBOLS LETTER(S)
None

WARNING LABEL PHRASES:

J37  SOLVENT-BASED PAINT.
R10  Flammable.
R52/53  Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R66  Repeated exposure may cause skin dryness or cracking.

P99  Contains: ETHYL METHYL KETOXIME, COBALT CARBOXYLATE. May produce an allergic reaction.

S16  Keep away from sources of ignition - no smoking.
J4  Contains white spirit.
S51  Use only in well ventilated areas.
J103  Ensure maximum ventilation during application and drying.
J7  Do not use on large surface areas inside or in confined spaces.
S24/25  Avoid contact with skin and eyes.
J33  When applying it is advisable to wear eye protection.
S26  In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
J34  After contact with skin, wash immediately with plenty of soap and water or a proprietary skin cleanser. Do not use solvent, thinners or white spirit.
S2  Keep out of the reach of children.
S46  If swallowed, seek medical advice immediately and show this container or label.
J15  Do not use or store by hanging on a hook.
J16  Do not empty into drains or watercourses. Some local authorities have special facilities for disposing of waste paint.
S61  Avoid release to the environment. Refer to special instructions/safety data sheets.
J50  Avoid the inhalation of dust. Wear a suitable face mask if dry sanding.
J44  Special precautions should be taken during surface preparation of pre-1960s paint surfaces over wood and metal as they may contain harmful lead.
J47  For further advice contact ICI Paints AkzoNobel.

Additional advice for professional users:

S38  In case of insufficient ventilation, wear suitable respiratory equipment.
J106  For large interior surfaces or in confined spaces: when applying by brush or roller wear a suitable cartridge respirator or air-fed respiratory protective equipment (RPE); when spraying wear air-fed RPE.
S23  Do not breathe spray.
J18  Before use refer to the safety data sheet.
J110  This includes waste hazard categories.

Where 'J' and/or 'P' phrases are denoted, these are ICI Paints AkzoNobel or paint industry reference codes to additional phrases.

Label phrase according to the Volatile Organic Compounds in Paints, Varnishes and Vehicle Refinishing Products Regulations:
EU limit value for this product (cat. A/i):  600 g/l (2007)/ 500 g/l (2010).
This product contains max. 499 g/l VOC.

16. OTHER INFORMATION
Text for R Phrases shown in section 3 describing each ingredient:

R10    Flammable.
R21    Harmful in contact with skin.
R22    Harmful if swallowed.
R36/38 Irritating to eyes and skin.
R38    Irritating to skin.
R40    Limited evidence of a carcinogenic effect.
R41    Risk of serious damage to eyes.
R43    May cause sensitisation by skin contact.
R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R65    Harmful: may cause lung damage if swallowed.
R66    Repeated exposure may cause skin dryness or cracking.

The information in this safety data sheet is required in pursuant to the CHIP Regulations.

Other Reference: The Control of Substances Hazardous to Health Regulations (COSHH). You should satisfy yourself that your COSHH Assessment is in accordance with the COSHH Regulations and Approved Code of Practice. ICI does not accept any responsibility for your COSHH Assessment.

The information on this sheet is not a specification: it does not guarantee specific properties. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage and use of the product. It is not applicable to unusual or non-standard uses of the product nor where instructions and recommendations are not followed.

We will be pleased to answer any specific enquiries regarding the safe use, storage and handling of our product.
Contact: ICI Paints AkzoNobel Technical Group, Wexham Road, Slough, Berks. SL2 5DS. Telephone: 0870 242 1100.

Imperial Chemical Industries Limited is part of AkzoNobel
Registered office 26th Floor Portland House Bressenden Place London SW1E 5BG Registered number 218019

REVISION 04/2010: CHANGES TO SECTIONS 1,2,3,9,15 COMPARED WITH PREVIOUS VERSION DATED 02/2007 WHICH IS NOW SUPERSEDED.