

1. IDENTIFICATION OF THE PREPARATION AND OF THE COMPANY

CHUGOKU PAINTS B.V

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The Netherlands
INTENDED USE: Paint and/or related product.

Product nr: 691VR

Printed: 09-11-2007
Reviewed: 08-02-2007
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2. HAZARDS IDENTIFICATION

R10 Flammable.
R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
R43 May cause sensitisation by skin contact.
R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Extended details regarding health and environment, see section 11 & 12.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances presenting a health hazard within the meaning of the Dangerous Substances Directive Regulations 67/548 EEG or assigned an occupational exposure limit.

| Name | EG-no. | conc.range | symbol | R-phrases |
|--------------------------|-----------|------------|--------|-----------------------|
| Cuprous(I)Oxide | 215-270-7 | 25-50 | Xn,N | 22-50/53- |
| Low Boiling Point Naphta | 265-199-0 | 10-25 | Xn,N | 10-37-51/53-65-66-67- |
| Xylene Rosin | 215-535-7 | 10-25 | Xn | 10-20/21-38- |
| Gum Zinc | 232-475-7 | 5-10 | Xi | 43- |
| Oxide | 215-222-5 | 5-10 | N | 50/53- |
| Dichlofluaniid | 214-118-7 | 1-5 | Xn,N | 43-20-36-50/53- |
| Tricresyl Phosphate | 201-105-6 | 0-1 | Xn,N | 21/22-51/53- |
| Epoxy Resin Mwt<700 | 500-033-5 | 0-1 | Xi,N | 43-36/38-51/53- |

4. FIRST AID

General:

In all cases of doubt, or when symptoms persist, seek medical attention.
Never give anything by mouth to an unconscious person.
If unconscious place in recovery position and seek medical advice.

Inhalation:

Remove to fresh air, keep the patient warm and at rest.
If breathing is irregular or stopped, administer artificial respiration.

Skin contact:

Remove contaminated clothing.
Wash skin thoroughly with soap and water or use recognised skin cleanser.
Do NOT use solvents or thinners.

Eye contact:

Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart and seek medical advice.

Ingestion:

If accidentally swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Recommended: Alcohol resistant foam, CO₂, powder, water spray/mist.

Extinguishing media which must not be used for safety reasons

Water jet. Zinc dust containing products should not be extinguished with water.

Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases

Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard (see Section 10).

Appropriate breathing apparatus may be required.

Cool closed containers exposed to fire with water.

Do not allow run-off from fire fighting to enter drains or water courses.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Exclude sources of ignition and ventilate the area. Avoid breathing vapours.

Refer to protective measures listed in Sections 7 and 8.

Contain and collect spillages with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in container for disposal according to local regulations. (see Section 13).

Environmental precautions

Do not allow to enter drains or water courses.

If the product contaminates lakes, rivers or sewage, inform appropriate authorities in accordance with local regulations.

Methods for cleaning up

Clean preferably with a detergent; avoid the use of solvents.

7. HANDLING AND STORAGE

Handling:

Vapours are heavier than air and may spread along floors. Vapours may form explosive mixtures with air.

Prevent the creation of flammable or explosive concentrations of vapour in air and avoid vapour concentration 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 to the appropriate standard.

Preparation may charge electrostatically; always use earthing leads when transferring from one container to another. Operators should wear anti-static footwear and clothing and floors should be of the conductive type.

Keep the container tightly closed. Isolate from sources of heat, sparks and open flame. No sparking tools should be used.

Avoid skin and eye contact. Avoid the inhalation of dust, particulates and spray mist arising from the application of this preparation. Avoid inhalation of dust from sanding. Smoking, eating and drinking should be prohibited in application area.

For personal protection, see Section 8.

Never use pressure to empty: the container is not a pressure vessel.

Always keep in containers made of the same material as the original one.

Comply with the health and safety at work laws.

When operators, whether spraying or not, have to work inside the spray booth, ventilation is unlikely to be sufficient to control particulates and solvent vapour in all cases. In such circumstances they should wear a compressed air-fed respirator during the spraying process and until such time as the particulates and solvent vapour concentration has fallen below the exposure limits.

Storage:

Store in accordance with the conditions of the licence which is necessary under the Petroleum (Consolidation) Act.

Further guidance is contained in the HSE guidance note Storage of Flammable Liquids in Containers.

The principles contained in the HSE's guidance note Storage of Packaged Dangerous Substances should be observed when storing this product. Observe the label precautions.

Store between 0°C and 40°C in a dry, well ventilated place away from sources of heat and direct sunlight.

Keep away from sources of ignition. Keep away from oxidising agents, from strongly alkaline and strongly acid materials.

No smoking. Prevent unauthorised access. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Do not empty into drains.

Application: Airless spray, brush, roller (See also the Technical Datasheet)

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure controls

Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapour below the relevant Occupational Exposure Limits, suitable respiratory protection must be worn. (see IIPersonal protectionII).

| Exposure limit values | | (NL) | (GB) | (E) | (F) | (D) | (S) | (I) | S A |
|--------------------------|---------------|---------|---------|---------|---------|---------|---------|---------|--------|
| Cuprous(I)Oxide | 8hr ppm/mg/m3 | -/1 | -/- | -/- | -/- | -/- | -/- | -/- | - |
| | 15m ppm/mg/m3 | -/- | -/- | -/- | -/- | -/- | -/- | -/- | - |
| Low Boiling Point Naphta | 8hr ppm/mg/m3 | 20/100 | -/- | -/- | -/- | -/- | -/- | -/- | - |
| | 15m ppm/mg/m3 | -/- | -/- | -/- | -/- | -/- | -/- | -/- | - |
| Xylene | 8hr ppm/mg/m3 | 50/210 | 50/220 | 50/221 | 100/435 | 100/440 | 50/200 | 100/440 | H |
| | 15m ppm/mg/m3 | 100/442 | 100/441 | 100/442 | 200/870 | 200/880 | 100/450 | 150/661 | - |
| Rosin Gum | 8hr ppm/mg/m3 | -/- | -/- | -/- | -/- | -/- | -/- | -/- | - |
| | 15m ppm/mg/m3 | -/- | -/- | -/- | -/- | -/- | -/- | -/- | - |
| Zinc Oxide | 8hr ppm/mg/m3 | -/5 | -/- | -/10 | -/3 | -/3 | -/5 | 0,59/2 | - |
| | 15m ppm/mg/m3 | -/- | -/- | -/- | -/3 | -/3 | -/- | 2,96/10 | - |
| Dichlofluand | 8hr ppm/mg/m3 | -/10 | -/- | -/- | -/- | -/- | -/- | -/- | - |
| | 15m ppm/mg/m3 | -/- | -/- | -/- | -/- | -/- | -/- | -/- | - |
| Tricresyl Phosphate | 8hr ppm/mg/m3 | -/- | -/- | -/- | -/- | -/- | -/- | -/- | - |
| | 15m ppm/mg/m3 | -/- | -/- | -/- | -/- | -/- | -/- | -/- | - |
| Epoxy Resin Mwt<700 | 8hr ppm/mg/m3 | -/- | -/- | -/- | -/- | -/- | -/- | -/- | - |
| | 15m ppm/mg/m3 | -/- | -/- | -/- | -/- | -/- | -/- | -/- | - |

The Netherlands - TGG♦Tijd Gewogen Gemiddelde (8u/15 min.) MAC-waarden, U.K. - TWA♦Time Weighted Average (8h/15 min.) HSE EH40 Exposure Limits, España - VLA♦Valores de Exposición Diaria (ED-8hr) & Exposición de Corta duración (CD-15m) La Comisión de Higiene y Seguridad, France - VME♦Valeur Moyenne d'Exposition (8hr) & VLE♦Valeur Limite d'Exposition calculée sur une courte durée (15m) le Ministère du Travail, Deutschland - Aussetzung - 8 Std/15 min.) TRGS 900 (MAK-Grenzwerten), Sverige - NGV♦Nivagrinsvärde (8t) & KTV♦Korttidsvärde (15m) Arbetskyddsstyrelsens Hygieniska Gränsvärde, Italia - TLV♦Threshold Limit Value (Lungo termine 8 ore/Breve Termine 15 m) Commissione ACGIH-American Conference of Governmental Industrial Hygienists.

SA♦Skin Absorption; H: indicates a risk of absorption through the skin.

Personal protection:

Respiratory protection:

Air-fed respiratory protective equipment should be worn when this product is sprayed if the exposure of the sprayer or other people nearby cannot be controlled to below the occupational exposure limit and engineering controls and methods cannot reasonably be improved. This can be done by e.g. compressed air or half-mask with appropriate filters, A2 for organic vapours (combined with dustfilter P3). Dry sanding, flame cutting and/or welding of the dry paint film will 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.

Hand protection:

At repeated or prolonged contact; gloves. Viton-gloves offer good protection for intense contact with most solvents, e.g. complete immersion in solvent. Nitrile gloves offer good protection during spray application. Dependent on application intensity of contact with the product, manufacturer, the gloves they need to be replaced; consult the supplier of the gloves for details. Breakthrough time nitrile gloves: Methyl ethyl ketone 7 min, Toluene 25 min, Xylene 53 min, White Spirit >480 min, Isobutyl Methyl Ketone 4 min and Isopropyl alcohol >480 min. Barrier creams may help to protect the exposed areas of the skin, they should however not be applied once exposure has occurred.

Eye protection:

Use safety eyewear designed to protect against splash of liquids.

Skin protection:

Personnel should wear anti-static clothing made of natural fibre or of high temperature resistant synthetic fibre.

Environmental exposure controls: see section 12

9. PHYSICAL AND CHEMICAL PROPERTIES

| | | | |
|---------------------------|------------------------------|------------------|--|
| Physical state: Liquid | Specific Gravity: 1,68 g/cm3 | Flashpoint: 32°C | Solubility in water: Not Soluble |
| Viscosity ISO Cup 6: >60s | Viscosity Ford Cup 4: >200s | Explosion limits | |
| Cuprous(I)Oxide | | N.A. | Persistence and biodegradability in water: No data available |
| Low Boiling Point Naphta | | 0.7-8 % | |
| Xylene | | 1.0-7.0% | |
| Rosin Gum | | N.A. | Bioaccumulation: No data available |
| Zinc Oxide | | N.A. | |
| Dichlofluand Tricresyl | | N.A. | |
| Phosphate Epoxy Resin | | N.A. | |
| Mwt<700 | | N.A. | |

10. STABILITY AND REACTIVITY

Conditions to avoid

Stable under the recommended storage and handling conditions. (See Section 7).

When exposed to high temperatures may produce hazardous decomposition products.

Materials to avoid

Keep away from oxidising agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.

Hazardous decomposition products

such as carbon monoxide and dioxide, smoke, oxides of nitrogen etc.

11. TOXICOLOGICAL INFORMATION

There is no experimental data available on the product itself. The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and classified for toxicological hazards accordingly. See Sections 2 and 15 for details. Exposure to component solvents vapours concentration in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on kidney, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness. Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and absorption through the skin. The liquid splashed in the eyes may cause irritation and reversible damage.

This product contains epoxy constituents, taking into account information of comparative compounds, this product may cause sensitisation by skin contact and inhalation. This product causes irritation.

Epoxy compounds are irritating to eyes, mucous membranes and skin.

Repeated skin contact may cause irritation, sensitisation and over-sensitisation to other epoxies.

May cause sensitisation by skin contact.

12. ECOLOGICAL INFORMATION

There are no data available on the preparation itself.

The product should not be allowed to enter drains or water courses. The preparation has been assessed following the conventional method of the Dangerous Directive (1999/45/EG) and is classified for eco-toxicological properties accordingly. See sections 2, 9 and 15 for details.

13. DISPOSAL CONSIDERATIONS

Waste and emptied containers should be disposed of in accordance with regulations made under the Control of Pollution Act and the Environmental Protection Act or consult EC disposal guide.

The European Waste Catalogue classification of this product, when disposed of as waste is 08 11 11.

If this product is mixed with other wastes, this code may no longer apply. If mixed with other wastes, the appropriate code should be assigned. For further information contact your local waste authority.

14. TRANSPORT INFORMATION

| | | |
|--|---|--|
| ADR/RID Class: | Carriage in accordance with 2.2.3.1.5 (<450L) | |
| Subsidiar risc: | - | Packing group: III |
| UN-number: | 1263 | Hazard Identification Number: - |
| Proper Shipping Name: Paint | | |
| ----- | | |
| IMDG Class: | 3 | |
| Subsidiar risc: | - | Packing group: III |
| UN-number: | 1263 | |
| Proper Shipping Name: Paint | | |
| Marine Pollutant: | P | Marine Pollutant Substance(s): TRICRESYL PHOSPHATE, ZINC |
| EMS: | F-E, S-E | OXIDE |
| ----- | | |
| Special Provisions: 163, 223, 944, 955 | | |



IATA Class: 3 The 'viscosity exemption' provisions do not apply to air transport.
Subsidiar risc: - Packing group: III
UN-number: 1263 Special Provisions: A3, A72
Proper Shipping Name: Paint

Transport in accordance with ADR/RID, IMDG and ICAO/IATA.

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.

15. REGULATORY INFORMATION

This antifouling paint is registered for use in U.K. under H.S.E.7373

The information given in this Safety Data Sheet is in accordance with Annex II to regulation (EC) No 1907/2006 and with Directive 1999/45/EG.

The product is classified and labelled for supply in accordance with the Dangerous Preparations Directive (DPD) 1999/45/EC as follows:

| | |
|-----------|--|
| Symbol | Xn,N |
| Contains | Cuprous(I)Oxide Xylene Dichlofluanid Rosin Gum |
| R10 | Flammable. |
| R20/21/22 | Harmful by inhalation, in contact with skin and if swallowed. |
| R43 | May cause sensitisation by skin contact. |
| R50/53 | Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |
| S02 | Keep out of the reach of children. |
| S51 | Use only in well-ventilated areas. |
| S45 | In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). |
| S36/37 | Wear suitable protective clothing and gloves. |
| S29/56 | Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point. |

Spray application:

| | |
|-----|---|
| S23 | Do not breath vapor/spray. |
| S38 | In case of insufficient ventilation, wear suitable respiratory equipment. |

16. OTHER INFORMATION

| | |
|--------|--|
| R10 | Flammable. |
| R20 | Harmful by inhalation. |
| R20/21 | Harmful by inhalation and in contact with skin. |
| R21/22 | Harmful in contact with skin and if swallowed. |
| R22 | Harmful if swallowed. |
| R36 | Irritating to eyes. |
| R36/38 | Irritating to eyes and skin. |
| R37 | Irritating to respiratory system. |
| R38 | Irritating to skin. |
| 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. |
| R67 | Vapours may cause drowsiness and dizziness. |

This product does not contain organotin compounds acting as biocides and complies with the International convention on the control of harmful Anti-fouling systems on ships as adopted by IMO in october 2001 (IMO document AFS/CONF/26)II.

The information of this SDS is based on the present state of our knowledge and on current EU and national laws.

The product is not to be used for other purposes than those specified under section 1 without first obtaining written handling instruction.

It is always the responsibility of the user to take all necessary steps in order to fulfil the demand laid down in the local rules and legislation.

The information in this SDS is meant as a description of the safety requirements of our product: it is not to be considered as a guarantee of the products' properties.