



MATERIAL SAFETY DATA SHEET

ZINC TC TWIN PACK ETCH PRIMER BASE

Reference
TPEP

Revision No
4

Revision Date
25 November 2003

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1. IDENTIFICATION OF PREPARATION PB053 COMPANY/UNDERTAKING IDENTIFICATION	ZINC TETROXYCHROMATE TWIN PACK ETCH PRIMER BASE R J Stokes & Company Limited Little London Road Sheffield S8 0UH Great Britain Telephone 44 (0)114 258 9595 Fax 44 (0)114 250 9836 Emergency Telephone 44 (0)114 258 9595 E Mail sales@rjstokes.co.uk																									
2. COMPOSITION / INFORMATION ON INGREDIENTS HAZARDOUS COMPONENTS	Substances presenting a health or environmental hazard within the meaning of the CHIP Regulations or which are assigned occupational Exposure Limit Values. See Section 16 for full text of all R-Phrases. <table border="1"><thead><tr><th>Name</th><th>%</th><th>CAS</th><th>EINECS</th><th>SUPPLY CLASS</th></tr></thead><tbody><tr><td>METHYL ETHYL KETONE</td><td>10 - 30</td><td>78-93-3</td><td>201-159-0</td><td>F;Xi R-11-36-66-67</td></tr><tr><td>ISOPROPANOL</td><td>25 - 50</td><td>71-23-8</td><td>200-746-9</td><td>F;Xi R-11-36-67</td></tr><tr><td>ZINC TETROXY CHROMATE</td><td>5 - 15</td><td>49663-84-5</td><td></td><td>T;N R-45-22-43-50/53</td></tr><tr><td>N-BUTANOL</td><td>5 - 10</td><td>71-36-3</td><td>200-751-6</td><td>Xn; R10-22-37/38-41-67</td></tr></tbody></table>	Name	%	CAS	EINECS	SUPPLY CLASS	METHYL ETHYL KETONE	10 - 30	78-93-3	201-159-0	F;Xi R-11-36-66-67	ISOPROPANOL	25 - 50	71-23-8	200-746-9	F;Xi R-11-36-67	ZINC TETROXY CHROMATE	5 - 15	49663-84-5		T;N R-45-22-43-50/53	N-BUTANOL	5 - 10	71-36-3	200-751-6	Xn; R10-22-37/38-41-67
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3. HAZARDS IDENTIFICATION	Environmental Danger. Toxic. Highly Flammable. Harmful if swallowed. May cause cancer. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.																									
4. FIRST AID MEASURES GENERAL: INHALATION: EYE CONTACT: SKIN CONTACT: INGESTION:	In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. Remove to fresh air, keep patient warm and at rest. If breathing is irregular or has stopped, administer artificial respiration. Give nothing by mouth. If unconscious place in recovery position and seek medical advice. Remove contact lenses. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart and seek medical advice. Remove contaminated clothing. Wash skin thoroughly with soap and water or use a proprietary skin cleaner. Do NOT use solvents or thinners. If accidentally swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.																									
5. FIRE FIGHTING MEASURES EXTINGUISHING MEDIA: RECOMMENDATIONS:	Recommended: Alcohol resistant foam, CO2, powder, water spray/mist. Not to be used: Water jet. Fire will produce dense black smoke containing hazardous products of combustion (see Section 10). Exposure to decomposition products may be a hazard to health. Appropriate self-contained breathing apparatus may be required. Cool closed containers exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses.																									
6. ACCIDENTAL RELEASE MEASURES	Exclude sources of ignition and ventilate the area. Exclude non-essential personnel. Avoid breathing vapours. Refer to protective measures listed in Sections 7 & 8. Contain and collect spillages with non-combustible absorbent materials, e.g. sand, earth, diatomaceous earth and place in a suitable container for disposal in accordance with the waste 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 case of contamination of streams, rivers or lakes, the relevant environment agency.																									



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7. STORAGE AND HANDLING

STORAGE:

The storage and use of this product is subject to the requirements of the Highly Flammable and Liquefied Petroleum Gases Regulations. Up to 50 litres of such highly flammable liquids may be kept in the work room, provided they are kept in a fireproof cupboard or bin. Larger quantities must be kept in a larger storeroom, conforming to the structural requirements of the regulations. Further guidance is contained in the HSE guidance note Storage of Flammable Liquids in Containers.

Observe the label precautions. Store between 5°C and 25°C in a 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.

Store separately from oxidizing agents and strongly alkaline and strongly acidic materials.

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

HANDLING AND USAGE:

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 Limit Values.

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.

The product 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 electrically conductive.

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 Occupational Exposure Control Measures, 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 supply container.

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.

The Manual Handling Operations Regulations may apply to the handling of containers of this product.

Refer to the guide weight indicated on the container when carrying out assessments.

Always use wet flattening methods wherever possible.

When dry flattening cannot be avoided and effective local exhaust ventilation is not available, wear a suitable dust respirator.

Avoid the inhalation of dusts. Wear a suitable face mask if dry sanding.

Stir well before use. Test a small area first.

Not designed to be used in conjunction with other manufacturer's surface coatings.



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8. EXPOSURE CONTROLS / PERSONAL PROTECTION (NORMAL USE)

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 solvent vapour and/or particulates below the relevant Occupational Exposure Limit Values, suitable respiratory protection must be worn (See below).

OCCUPATIONAL EXPOSURE CONTROLS:

All personal protective equipment, including respiratory protective equipment, used to control exposure to hazardous substances must be selected to meet the requirements of the COSHH Regulations.

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 Values and engineering controls and methods cannot be reasonably improved.

HAND PROTECTION:

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. Barrier creams may help to protect exposed areas of skin, but are not substitutes for full physical protection. They should not be applied once exposure has occurred.

EYE PROTECTION:

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

SKIN PROTECTION:

Cotton or synthetic/cotton 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. Regular skin inspection of users of this product is recommended. ALWAYS WASH YOUR HANDS BEFORE EATING, SMOKING OR USING THE TOILET.

ENVIRONMENTAL EXPOSURE CONTROL:

See Section 12 for detailed information.

OCCUPATIONAL EXPOSURE LIMITS

Name	8 Hr OES	15 Mins OES	Type	Reference
METHYL ETHYL KETONE	600 mg/m ³	899 mg/m ³	OES	EH40
ISOPROPANOL	999 mg/m ³	1250 mg/m ³	OES	EH40
ZINC TETROXY CHROMATE	0.05 mg/m ³	No Std	MEL	EH40
N-BUTANOL	No Std	154 mg/m ³	OES	EH40

9. PHYSICAL / CHEMICAL PROPERTIES

PHYSICAL STATE:

Viscous Liquid.

FLASH POINT:

Below 23°C

SPECIFIC GRAVITY:

0.90 - 0.93

VAPOUR DENSITY:

Heavier than air.

10% LOWER EXPLOSION LIMIT:

Approx 250 m³/t

SOLUBILITY IN WATER:

Miscible.

10. STABILITY AND REACTIVITY

Stable under the recommended storage and handling conditions (see Section 7). In a fire, hazardous decomposition products such as smoke, carbon dioxide, and oxides of nitrogen may be produced. Keep away from oxidizing agents and strongly alkaline and strongly acidic materials to prevent the possibility of exothermic reaction.

11. TOXICOLOGICAL INFORMATION

There is no data on the product itself. The product has been assessed following the conventional method in CHIP 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 3 and 15 for details of the resulting hazard classification.

Exposure to organic solvent vapours in excess of the stated occupational exposure limit may result in adverse health effects such as irritation of the mucous membrane and the respiratory system 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 product may cause removal of natural fats from the skin, resulting in non-allergic contact dermatitis and absorption through the skin. Splashes in the eyes may cause irritation and reversible local damage.



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<p><u>12. ECOLOGICAL INFORMATION</u></p>	<p>There is no data available on the product itself.</p> <p>The product has been assessed following the conventional method in CHIP and is classified for ecological hazards accordingly. See Sections 3 & 15 for details.</p> <p>The product should not be allowed to enter drains or water courses or be deposited where it can effect ground or surface waters. LAPC/LAPPC/IPPC requirements of regulations made under the Environment Protection Act/Pollution Prevention and Control Act may apply to the use of this product.</p>
<p><u>13. DISPOSAL CONSIDERATIONS</u></p>	<p>Do not allow into drains or water courses or dispose of where ground or surface waters may be affected. Wastes, including emptied containers, are controlled wastes and should be disposed of in accordance with regulations made under The Control of Pollution Act and The Environment Protection Act. Using the information provided in this safety data sheet, advice should be obtained from the relevant environment agency whether the Special Waste Regulations apply.</p>
<p><u>14. TRANSPORT INFORMATION (REGULATIONS)</u></p> <p>TRANSPORT IN THE USER'S PREMISES:</p> <p>ONWARD TRANSPORT AFTER PURCHASE:</p> <p>PROPER SHIPPING NAME:</p> <p>UN NUMBER:</p> <p>HAZARD CLASS:</p> <p>PACKING GROUP:</p> <p>MARINE POLLUTANT:</p>	<p>ALWAYS TRANSPORT IN CLOSED CONTAINERS THAT ARE UPRIGHT AND SECURE.</p> <p>Ensure that persons transporting the product know what to do in the event of an accident or spillage.</p> <p>ALWAYS TRANSPORT IN CLOSED CONTAINERS THAT ARE UPRIGHT AND SECURE.</p> <p>Transport to be in accordance with ADR for Road, RID for Rail, IMDG for sea and ICAO/IATA for air.</p> <p>PAINT</p> <p>1263</p> <p>3 FLAMMABLE LIQUID</p> <p>II</p> <p>YES</p>
<p><u>15. REGULATORY INFORMATION (SUPPLY & LABELLING)</u></p>	<p>The product is classified and labelled in accordance with the CHIP Regulations as follows:</p> <p>Contains: Zinc Chromates including Zinc Potassium Chromate.</p> <p>Toxic.</p> <p>R11 Highly Flammable.</p> <p>R22 Harmful if swallowed.</p> <p>R45 May cause cancer.</p> <p>R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.</p> <p>S16 Keep away from sources of ignition - No smoking.</p> <p>S23 Do not breathe vapour or spray.</p> <p>S45 In case of accident or if you feel unwell, seek medical advice immediately (show label where possible).</p> <p>S51 Use only in well ventilated areas.</p> <p>P95 Restricted to professional users.</p> <p>The information contained in this safety data sheet does not constitute the user's own assessment of workplace risks as required by other health and safety legislation. The provisions of the Health and Safety at Work etc Act and the Control of Substances Hazardous to Health Regulations apply to the use of this product at work.</p>



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16. OTHER INFORMATION

TEXT OF R PHRASES FROM SECTION 2:

R10 Flammable.
 R11 Highly Flammable.
 R22 Harmful if swallowed.
 R36 Irritating to the eyes.
 R37/38 Irritating to respiratory system and skin.
 R41 Risk of serious damage to eyes.
 R43 May cause sensitisation by skin contact.
 R45 May cause cancer.
 R50/53 Very toxic to aquatic organisms and May cause long-term adverse effects in the aquatic environment.
 R66 Repeated exposure may cause skin dryness or cracking.
 R67 Vapours may cause drowsiness and dizziness.

The information contained in this safety data sheet is provided in accordance with the requirements of the CHIP regulations. The product should not be used for purposes other than those shown in Section 1 without first referring to the supplier and obtaining written handling instructions. As the specific conditions of use of the product are outside the supplier's control, the user is responsible for ensuring that the requirements of relevant legislation are complied with.

The information contained in this safety data sheet is based on the present state of knowledge and on current national legislation. It provides guidance on health, safety and environmental aspects of the product and should not be construed as any guarantee of technical performance or suitability for particular applications.

FURTHER INFORMATION AND ADVICE:

The Control of Substances Hazardous to Health Regulations 1999 (SI 1999:437),
 The Stationery Office.
 COSHH Essentials: easy steps to control chemicals (HSG 193), HSE Books.
 Details of Control Guidance Sheets, which may be relevant to the particular conditions of use, can also be found in this publication.
 The Highly Flammable and Liquefied Petroleum Gases Regulations 1972 (SI 1972:917),
 The Stationery Office.
 The Manual Handling Operations Regulations 1992 (SI 1992:2793),
 The Stationery Office.
 Chemical Warehousing: Storage of Flammable Liquids in Containers (HSG51), HSE Books.
 Storage of Packaged Dangerous Substances (HSG71), HSE Books.
 The Environmental Protection (Duty of Care) Regulations 1992 (SI 1992:2839), The Stationery Office.
 A Guide to Working with Solvents (INDG 272), HSE Books.

17. REVISION DETAILS

COMMENTS:

Revised to meet the requirements of CHIP 3 Regulations.
 See MSDS TPEPA for Activator Component.

REPLACEMENT:

Replaces MSDS TPEP REVISION 3 for Base Component.