



Teamac[®]
Marine & Industrial Coatings

**SAFETY DATA SHEET
MORDANT SOLUTION**

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

PRODUCT NAME MORDANT SOLUTION
 PRODUCT NO. 420/MORDANT
 APPLICATION Etchant / cleaner.
 SUPPLIER TEAL & MACKRILL LIMITED
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 info@teamac.co.uk
 CONTACT PERSON as above

2 COMPOSITION/INFORMATION ON INGREDIENTS

Name	EC No.	CAS-No.	Content	Classification
1-METHOXY-2-PROPANOL	203-539-1	107-98-2	10-30%	R10
PHOSPHORIC ACID ...%	231-633-2	7664-38-2	< 1	C;R34
PROPAN-2-OL	200-661-7	67-63-0	10-30%	F;R11 Xi;R36 R67

The Full Text for all R-Phrases are Displayed in Section 16

3 HAZARDS IDENTIFICATION

Flammable.

CLASSIFICATION R10.

4 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

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. DO NOT use solvents or thinners

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.

5 FIRE-FIGHTING MEASURES

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.

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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.

UNUSUAL FIRE & EXPLOSION HAZARDS

FLAMMABLE. Solvent vapours may form explosive mixtures with air.

SPECIFIC HAZARDS

By heating and fire, harmful vapours/gases may be formed.

PROTECTIVE MEASURES IN FIRE

Selection of respiratory protection for fire fighting: follow the general fire precautions indicated in the workplace.

6 ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS

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

ENVIRONMENTAL PRECAUTIONS

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

SPILL CLEAN UP METHODS

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.

7 HANDLING AND STORAGE

USAGE PRECAUTIONS

Observe workplace 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.

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

STORAGE PRECAUTIONS

Store in closed original container at temperatures between 5°C and 25°C. Keep away from heat, sparks and open flame. Keep containers tightly closed. Keep upright. Store separated from: Oxidising material. Alkalies. Acids.

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 Dangerous Substances: DSEAR. Up to 250 litres of liquids with a flashpoint above 32C but below 55C 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.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Name	Std	LT - ppm	LT - mg/m3	ST - ppm	ST - mg/m3
1-METHOXY-2-PROPANOL	WEL	100 ppm(Sk)	375 mg/m3(Sk)	150 ppm(Sk)	560 mg/m3(Sk)
PHOSPHORIC ACID ...%	WEL		1 mg/m3		2 mg/m3
PROPAN-2-OL	WEL	400 ppm	999 mg/m3	500 ppm	1250 mg/m3

INGREDIENT COMMENTS

WEL = Workplace Exposure Limits

PROTECTIVE EQUIPMENT



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ENGINEERING MEASURES

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

RESPIRATORY EQUIPMENT

No specific recommendation made, but respiratory protection must be used if the general level exceeds the Recommended Workplace 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.

HYGIENE MEASURES

No specific hygiene procedures noted, but good personal hygiene practices are always advisable, especially when working with chemicals.

9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	Clear liquid Solution		
COLOUR	Blue		
SOLUBILITY	partially miscible		
BOILING POINT (°C)	100 760 mm Hg	RELATIVE DENSITY	0.988 @ 20C
VAPOUR DENSITY (air=1)	heavier than air	VAPOUR PRESSURE	4.3 mm Hg @ 20 C
VISCOSITY	not determined	FLASH POINT (°C)	35 CC (Closed cup).
FLAMMABILITY LIMIT - LOWER(%)	N/A	VOLATILE ORGANIC COMPOUND (VOC)	325 g/litre

10 STABILITY AND REACTIVITY

STABILITY

Stable under normal temperature conditions and recommended use.

CONDITIONS TO AVOID

Avoid heat, flames and other sources of ignition. Avoid contact with acids and oxidising substances.

MATERIALS TO AVOID

Strong alkalis. Strong acids. Strong oxidising substances.

HAZARDOUS DECOMPOSITION PRODUCTS

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

11 TOXICOLOGICAL INFORMATION

GENERAL INFORMATION

Prolonged and repeated contact with solvents over a long period may lead to permanent health problems.

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.

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. Vapour or spray may cause temporary (reversible) eye damage.

HEALTH WARNINGS

Solvent vapours are hazardous and may cause nausea, sickness and headaches. Acts as a defatting agent on skin. May cause cracking of skin, and eczema.

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12 ECOLOGICAL INFORMATION

ECOTOXICITY

There are no data on the ecotoxicity of this product. The product is not expected to be hazardous to the environment. The product contains a substance which may cause long term adverse effects in the environment.

BIOACCUMULATION

The product contains potentially bioaccumulating substances.

DEGRADABILITY

The product is not expected to be biodegradable.

13 DISPOSAL CONSIDERATIONS

GENERAL INFORMATION

Do not allow to enter drains, sewers or watercourses.

DISPOSAL METHODS

Dispose of waste and residues in accordance with local authority requirements.

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).

14 TRANSPORT INFORMATION



UK ROAD CLASS	3.3		
PROPER SHIPPING NAME	PAINT PRODUCT		
ROAD TRANSPORT NOTES	Avoid releasing to the environment.		
RAIL TRANSPORT NOTES	Avoid releasing to the environment.		
SEA TRANSPORT NOTES	Do not release into the environment.		
UN NO. ROAD	1263	UK ROAD PACK GR.	III
ADR CLASS NO.	1263	ADR CLASS	Class 3: Flammable liquids.
ADR PACK GROUP	III	HAZARD NO. (ADR)	30 Flammable liquid (flash-point between 23°C and 61°C, inclusive) or flammable liquid or solid in the molten state with a flash-point above 61°C, heated to a temperature equal to or above its flash-point, or self heating liquid.
UN NO. SEA	1263	IMDG CLASS	3.3
IMDG PACK GR.	III	EMS	3-05
MARINE POLLUTANT	No.	UN NO. AIR	1263
AIR CLASS	3.3	AIR PACK GR.	III

15 REGULATORY INFORMATION

RISK PHRASES

R10 Flammable.

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SAFETY PHRASES

S2	Keep out of the reach of children
S46	If swallowed, seek medical advice immediately and show this container or label.
S51	Use only in well-ventilated areas.
S56	Dispose of this material and its container to hazardous or special waste collection point.
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.
S28	After contact with skin, wash immediately with plenty of water.
S29	Do not empty into drains.

UK REGULATORY REFERENCES

Chemicals (Hazard Information & Packaging) Regulations. The Control of Substances Hazardous to Health Regulations 1988. Health and Safety at Work Act 1974.

ENVIRONMENTAL LISTING

Control of Pollution Act 1974. Rivers (Prevention of Pollution) Act 1961.

EU DIRECTIVES

Dangerous Substance Directive 67/548/EEC. Dangerous Preparations Directive 1999/45/EC.

STATUTORY INSTRUMENTS

Chemicals (Hazard Information and Packaging) Regulations. Control of Substances Hazardous to Health.

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).

NATIONAL REGULATIONS

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2002. No. 1689. Workplace Exposure Limits 2005 (EH40) Health and Safety at Work Act (As Amended) 1974 Control of Substances Hazardous to Health Regulations 2002 (as amended) The Carriage of Dangerous Goods and use of transportable pressure equipment regulations 2004. Dangerous Substances and Explosive Atmospheres Regulations 2002 [SI 2002: 2776] The Manual Handling Operations Regulations 1992 [SI 1992:2793]

16 OTHER INFORMATION

REVISION COMMENTS

Major revision (CHIP3) Revisions to sections: (1), (2), (3), (8), (14), (15), and (16) Revision for WEL(Workplace Exposure Limit) section 8. Addition of references to Manual Handling Regulations and Dangerous Substances and Explosive Atmospheres Regulations (DSEAR) in Section 7; Classification of Wastes in Section 13; associated Regulatory References in Section 15.

ISSUED BY

Technical Dept. (P.E.)

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SAFETY DATA SHEET STATUS

Approved.

DATE Date printed _____

SIGNATURE Initials _____

RISK PHRASES IN FULL

R10	Flammable.
R11	Highly flammable.
R34	Causes burns.
R36	Irritating to eyes.
R67	Vapours may cause drowsiness and dizziness.

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.