

MATERIAL SAFETY DATA SHEET

SECTION 1. IDENTIFICATION OF SUBSTANCE/ PREPARATION AND COMPANY

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SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

Substances presenting a health hazard within the meaning of the Chemicals (Hazardous Information and Packaging) Regulations 1994.

Name	Concentration	Symbol Letter	R Phrases (*)
Butan-2-one	2.5-3.0%	Xi	R36/37
Methyl iso Butyl Ketone	2.5-3.0%		
Xylene, mixture of isomers	3-4%	Xn	R20/21/38
Toluene	2.5-3.5%	Xn	
Ethyl Acetate	2.5-3.5%		R36
2-Methoxy-1-Methlethyl Acetate	17-19%	Xn	

(*) For full text see Section 16

SECTION 3. HAZARDS IDENTIFICATION

Highly Flammable
Xi Irritating to the eyes

SECTION 4. FIRST AID MEASURES

General:

In all cases of doubt, or when 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 and seek medical advice.

Eye Contact:

Contact lenses should be removed. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart, and seek medical advice.

Skin Contact:

Remove contaminated clothing. Wash skin thoroughly with soap and water or use a proprietary skin cleaner.
Do NOT use solvents or thinners.

Ingestion:

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

SECTION 5. FIRE FIGHTING MEASURES

Extinguishing Media:

Recommended: Alcohol resistant foam, CO₂, powder, water spray/mist
Not to be used: Water jet

Recommendations:

Fire will produce dense black smoke containing hazardous products of combustion (see Section 10).
Decomposition products may be hazardous 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 the fire fighting to enter drains or water courses.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Exclude sources of ignition and ventilate the area. Exclude non-essential personnel. Avoid breathing solvent vapours. Refer to protective measures listed in Sections 7 and 8. Contain and collect spillage's with non-combustible absorbent materials e.g. sand, earth, vermiculite, 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 water courses.

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

If the product enters drains or sewers, the local water company should be contacted immediately; in the case of contamination of streams, rivers or lakes, the National Rivers Authority or local regulatory body.

SECTION 7. HANDLING AND STORAGE

Handling

Solvent 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 solvent vapour in air and avoid solvent concentrations higher than the occupational exposure limits.

Additionally, 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. Keep the container tightly closed. Exclude sources of head, sparks and open flame. Non-sparking tools should be used. Avoid smoking and eye contact. Avoid inhalation of solvent vapour and spray mist.

Smoking, eating and drinking should be prohibited in areas of storage and use.

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 supply container.

Good housekeeping standards and regular, safe removal of waste materials will minimise risks of spontaneous combustion and other fire hazards.

The product may charge electrostatically. Use earthing leads when transferring from one container to another.

Operators should wear anti-static footwear and clothing and floors should be electrically conductive.

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.

Storage

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

Further guidance is contained in the UK HSE guidance not Storage of Flammable Liquids in Containers. Observe the label precautions. Store between 5 DEG C/41 DEG F and 25 DEG C/77 DEG F 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. The principles contained in the UK HSE's guidance note Storage of Packaged Dangerous Substances should be observed when storing this product. Store separately from oxidising agents and strongly alkaline and strongly acidic materials.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Engineering Measures**

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/or solvent vapours below the relevant occupational exposure limits, suitable respiratory protective equipment should be worn. (see 'Personal Protection' below).

Substance	<u>Occupational Exposure Limits</u>				
	8 hr TWA (1)		15 min STEL (2)		Notations (3)
	ppm (4)	mg/m (3)	ppm (4)	mg/m – 3	
Butan-2-one	200	600	300	900	Sk
Methyl iso Butyl Ketone	50	205	100	140	Sk
Xylene, mixture of isomers	100	435	150	650	Sk
Toluene	50	188	150	560	Sk
Ethyl Acetate	400	1400			
2-Methoxy-1-Methylethyl Acetate*	100	360	300	1080	

Notes:

- (1) Long term exposure limit - 8 hour time weighted average.
 (2) Short term exposure limit - 15 minute reference period
 (3) 'Sk' indicates a risk of absorption through the skin. 'SEN' indicates a respiratory sensitiser.
 (4) 'OES' indicates an Occupational Exposure Standard; 'MEL' indicates a Maximum Exposure Limit
 'OEL's are taken from the current version of EH40, except those marked 'SUP', which are assigned by the supplier of the substance.

*Values given are for parent alcohol

Personal Protection

All personal protection equipment, including respiratory protection 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 and engineering controls and methods cannot reasonably be improved.

Hand protection:

When skin exposure may occur, advice should be sought from glove suppliers on appropriate types. Barrier creams may help to protect exposed areas of the 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 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.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Medium Viscosity Liquid		
Flash Point	4 DEG C +/- 2 DEG C	method	Pensky Marten Closed Cup
Viscosity	50-60 secs*	method	BS Flow Cup No.4 at 25 DEG C
Specific Gravity	1.0-1.35*	method	S.G Cup
Vapour Density	>1.0 (Heavier than air)		
Lower Explosion Limit	1.0%		
Solubility in Water	Insoluble		

* Depends on colour

SECTION 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 monoxide and carbon dioxide may be produced. Keep away from oxidising agents and strongly alkaline and strongly acidic materials to prevent the possibility of exothermic reaction.

SECTION 11. TOXICOLOGICAL INFORMATION

Exposure to organic solvent vapours may result in adverse health effects such as irritation of the mucous membrane and the respiratory system and adverse effects on the renal and central nervous systems.

Symptoms include headaches, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness. Repeated or prolonged contact with the product may lead to 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.

SECTION 12. ECOLOGICAL INFORMATION

There is no data available for the product itself. The product should not be allowed to enter drains or water courses 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.

SECTION 13. DISPOSAL CONSIDERATIONS

Do not allow to enter 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 Environmental Protection Act. (Using the information provided in the safety data sheet, advice should be obtained from the Waste Regulation Authority whether the special waste regulations apply).

SECTION 14. TRANSPORT INFORMATION

Transport within the 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 accident or spillage.

Transport details

Proper Shipping Name: Paint
UN Number: 1263
Class: 3 (Road and Rail) 3.2 (Sea)
Hazard: Flammable
Sub Hazard: None
Packing Group: II
Ensure drivers have adequate training
International road/rail transport
Chemical Name: Paint
Item Number: 5b
Marine Pollutant: No
EmS: 3-05
MFAG: 310

SECTION 15. REGULATORY INFORMATION

The product is classified and labeled for supply in accordance with the Chemicals (Hazard Information and Packaging) Regulations (UK) as follows:

MAIN RISK: FLAMMABLE
SUB RISK: IRRITANT

The following details must be included on the label:-

Contains:-

R11 Highly Flammable
R36 Irritating to the eyes
S16 Keep away from sources of ignition - NO SMOKING
S23 Do not breathe vapour or spray
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
S51 Use only in well ventilated areas

The information contained within this safety data sheet does not constitute the users own assessment of workplace risks as required by other health and safety legislation. The provisions of the Health and Safety at Work etc. Act (UK) and the Control of Substances Hazardous to Health Regulations (UK) or equivalent apply to the use of this product at work.

SECTION 16 OTHER INFORMATION

Text of R Phrases listed in Section 2

R36 Irritating to eyes

The information contained in this safety data sheet is provided in accordance with the requirements of the Chemicals (Hazard information and Packaging) Regulations (UK). 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 the use of the product are outside the suppliers control, the user is responsible for ensuring that the requirements if relevant legislation are complied with.

The information contained in this safety data sheet is based on the present state of knowledge and 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.

Date of Preparation: 01.02.2003



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SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

Substances presenting a health hazard within the meaning of the Chemicals (Hazardous Information and Packaging) Regulations 1994.

Name	Concentration	Symbol Letter	R Phrases (*)
Polyoxypropylenediamine	6-7%	C	R21/22, R34, R43
3-[(6-aminotrimethylhexy)amino]propiontrile	1-1.5%	C	R22, R34, R43
Isophorone diamine	2.5-3.5%	C	R21/22, R34, R43

(*) for full text see Section 16.

SECTION 3. HAZARDS IDENTIFICATION

C Causes burns
May cause sensitisation by skin contact.

SECTION 4. FIRST AID MEASURES

General: In all cases of doubt, or when 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 and seek medical advice.

Eye contact: Contact lenses should be removed. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart, and seek medical advice.

Skin contact: Remove contaminated clothing. Wash skin thoroughly with soap and water or use a proprietary skin cleaner. Do NOT use solvents or thinners.

Ingestion: If accidentally swallowed drink water in sips to dilute; drink citrus fruit juice to neutralize. Obtain immediate medical attention. Keep patient at rest. Do NOT induce vomiting.

SECTION 5. FIRE FIGHTING MEASURES

The preparation is not flammable, but after evaporation of water in a fire might produce dense black smoke containing hazardous products of combustion (see Section 10). Decomposition products may be hazardous to health. Appropriate self-contained breathing apparatus may be required. Do not allow run-off from the fire fighting to enter drains or water courses.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Ventilate the area. Exclude non-essential personnel. Avoid breathing fumes. Refer to protective measures listed in Section 7 and 8. Contain and collect spillage's with absorbent materials e.g. sand, earth, vermiculite, 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 water courses. Clean preferably with a detergent; avoid the use of solvents.

If the product enters drains or sewers, the local water company should be contacted immediately; in the case of contamination of streams, rivers or lakes, the National Rivers Authority or local regulatory body.

SECTION 7. HANDLING AND STORAGE

Handling: Persons with a history of skin sensitisation problems should be employed in processes in which this product is used only under medical supervision. Avoid skin and eye contact. Avoid inhalation of solvent vapour and spray mist. Smoking, eating and drinking should be prohibited in areas of storage and use. 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 supply container.

Storage: Avoid freezing. Seal containers after use. Observe the label precautions. Store between 5°C/41°F and 25°C/77°F 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. The principles contained in the UK HSE's guidance note Storage of Packaged Dangerous Substances should be observed when storing this product. Store separately from oxidising agents and strongly alkaline and strongly acidic materials.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering measures: 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/or solvent vapours below the relevant occupational exposure limits, suitable respiratory protective equipment should be worn. (see 'Personal Protection' below)

Occupational Exposure Limits

8 hr TWA (1) 15 min STEL (2)
ppm(4) mg/m⁻³ ppm(4) mg/m⁻³ Notations(3)

Substance
Contains no materials listed in EH40

Personal Protection

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

Respiratory protection: Respiratory protective equipment should be worn when this product is sprayed.

Hand protection: Gloves should be worn when using this product. Advice should be sought from glove suppliers on appropriate types.

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.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: High viscosity liquid
 Flash point: NA method:
 Viscosity: 17.6-22.4 poise method: Brookfield Viscometer Spindle 5, Speed 5.
 Specific Gravity: 1.5-1.7* method: S.G. Cup
 Vapour Density: NA
 Lower Explosion limit N/A
 Solubility in water: Miscible.
 * Depends on colour.

SECTION 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 monoxide, carbon dioxide and oxides of nitrogen may be produced. Keep away from oxidising agents and strongly alkaline and strongly acidic materials to prevent the possibility of exothermic reaction.

SECTION 11. TOXICOLOGICAL INFORMATION

Repeated skin contact may lead to irritation and hyper sensitivity.
 The product should be regarded as corrosive to skin and eyes.

SECTION 12. ECOLOGICAL INFORMATION

There is no data available for the product itself. The product should not be allowed to enter drains or water courses 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.

SECTION 13. DISPOSAL CONSIDERATIONS

Do not allow to enter 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 Environmental Protection Act. (Using the information provided in this safety data sheet, advice should be obtained from the Waste Regulation Authority whether the special waste regulations apply)

SECTION 14. TRANSPORT INFORMATION

Transport within the 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 accident or spillage.

Transport details

Class	8 (Road and Rail) 8 (Sea)	Proper Shipping Name	Amines, Liquid Corrosive (NOS)
Hazard	Corrosive	UN No	2735
Sub Hazard	None		
Packing Group	III		
Ensure drivers have adequate training			
International road/rail transport		Sea Transport	
Chemical Name	Amines, Liquid Corrosive (NOS)	Marine Pollutant	No
Item No.	53c	EmS	8-05
		MFAG	320

SECTION 15. REGULATORY INFORMATION

The product is classified and labelled for supply in accordance with the Chemicals (Hazard Information and Packaging) Regulations (UK) as follows:

MAIN RISK CORROSIVE C

SUB RISK NONE

The following details must be included on the label:-

Contains:- Isophorone diamine;; 3-[(6-aminotrimethylhexyl)amino]propiontrile; Polyoxypropylenediamine

R34 Causes burns

R43 May cause sensitisation by skin contact

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice

S36/37/39 Wear suitable protective clothing, gloves and eye/face protection

S38 In case of insufficient ventilation, wear suitable respiratory equipment

S45 In case of accident or if you feel unwell, seek medical advice immediately (and show label where possible)

The information contained within this safety data sheet does not constitute the users own assessment of workplace risks as required by other health and safety legislation. The provisions of the Health and Safety at Work etc. Act (UK) and the Control of Substances Hazardous to Health Regulations (UK) or equivalent apply to the use of this product at work.

SECTION 16. OTHER INFORMATION

Text of R Phrases listed in Section 2

R21/22 Harmful in contact with skin and if swallowed

R34 Causes burns

R43 May cause sensitisation by skin contact

The information contained in this safety data sheet is provided in accordance with the requirements of the Chemicals (Hazard Information and Packaging) Regulations (UK).

The product should not be used for purposes other than shown in Section 1 without first referring to the supplier and obtaining written handling instructions. As the specific conditions of the use of the product are outside the suppliers 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 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.



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SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

Substances presenting a health hazard within the meaning of the Chemicals (Hazardous Information and Packaging) Regulations 1994.

Name	Concentration	Symbol Letter	R Phrases (*)
Epoxy Resin (MW<700) (* for full text see Section 16.	76-80%	Xi	R36/38, R43

SECTION 3. HAZARDS IDENTIFICATION

Xi Irritating to eyes and skin
May cause sensitisation by skin contact

SECTION 4. FIRST AID MEASURES

General: In all cases of doubt, or when 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 and seek medical advice.

Eye contact: Contact lenses should be removed. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart, and seek medical advice.

Skin contact: Remove contaminated clothing. Wash skin thoroughly with soap and water or use a proprietary skin cleaner. Do NOT use solvents or thinners.

Ingestion: If accidentally swallowed drink plenty of water. Obtain immediate medical attention. Keep patient at rest. Do NOT induce vomiting.

SECTION 5. FIRE FIGHTING MEASURES

The preparation is not flammable, but after evaporation of water in a fire might produce dense black smoke containing hazardous products of combustion (see Section 10). Decomposition products may be hazardous to health. Appropriate self-contained breathing apparatus may be required. Do not allow run-off from the fire fighting to enter drains or water courses.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Ventilate the area. Exclude non-essential personnel. Avoid breathing fumes. Refer to protective measures listed in Section 7 and 8. Contain and collect spillage's with absorbent materials e.g. sand, earth, vermiculite, 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 water courses. Clean preferably with a detergent; avoid the use of solvents. If the product enters drains or sewers, the local water company should be contacted immediately; in the case of contamination of streams, rivers or lakes, the National Rivers Authority or local regulatory body.

SECTION 7. HANDLING AND STORAGE

Handling: Persons with a history of skin sensitisation problems should be employed in processes in which this product is used only under medical supervision. Avoid skin and eye contact. Avoid inhalation of solvent vapour and spray mist. Smoking, eating and drinking should be prohibited in areas of storage and use. 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 supply container.

Storage: Avoid freezing. Seal containers after use.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering measures: 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/or solvent vapours below the relevant occupational exposure limits, suitable respiratory protective equipment should be worn. (see 'Personal Protection' below)

Occupational Exposure Limits

Substance	8 hr TWA (1) ppm(4)	15 min STEL (2) mg/m ⁻³	ppm(4)	mg/m ⁻³	Notations(3)
Contains no materials listed in EH40					

Personal Protection

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

Respiratory protection: Respiratory protective equipment should be worn when this product is sprayed.

Hand protection: When skin exposure may occur, advice should be sought from glove suppliers on appropriate types. Barrier creams may help to protect exposed areas of the 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 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.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Medium viscosity liquid		
Flash point:	NA	method:	
Specific Gravity:	1.03 +/- .02	method:	S.G. Cup
Lower Explosion limit	None		
Solubility in water:	Miscible.		

SECTION 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 monoxide, carbon dioxide and oxides of nitrogen may be produced.

SECTION 11. TOXICOLOGICAL INFORMATION

Based on the properties of the epoxy constituents and considering toxicological data for similar preparations this product may be a skin sensitiser and a severe irritant. It contains low molecular weight epoxy resin which is irritating to eyes, mucous membrane and skin. Repeated skin contact may lead to irritation and hyper sensitivity, possibly with cross sensitization to other epoxies.

SECTION 12. ECOLOGICAL INFORMATION

There is no data available for the product itself. The product should not be allowed to enter drains or water courses or be deposited where it can affect ground or surface waters.

SECTION 13. DISPOSAL CONSIDERATIONS

Do not allow to enter 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 Environmental Protection Act. (Using the information provided in this safety data sheet, advice should be obtained from the Waste Regulation Authority whether the special waste regulations apply)

SECTION 14. TRANSPORT INFORMATION

This product is not classified as dangerous for transport.

SECTION 15. REGULATORY INFORMATION

The product is classified and labelled for supply in accordance with the Chemicals (Hazard Information and Packaging) Regulations (UK) as follows:

MAIN RISK IRRITANT

SUB RISK NONE

The following details must be included on the label:-

R36/38 Irritating to eyes and skin

R43 May cause sensitisation by skin contact

S24/25 Avoid contact with skin and eyes

S28 After contact with skin wash immediately with plenty of soap and water

S37 Wear suitable gloves

S51 Use only in well ventilated areas

The information contained within this safety data sheet does not constitute the users own assessment of workplace risks as required by other health and safety legislation. The provisions of the Health and Safety at Work etc. Act (UK) and the Control of Substances Hazardous to Health Regulations (UK) or equivalent apply to the use of this product at work.

SECTION 16. OTHER INFORMATION

Text of R Phrases listed in Section 2

R36/38 Irritating to eyes and skin

R43 May cause sensitisation by skin contact

The information contained in this safety data sheet is provided in accordance with the requirements of the Chemicals (Hazard Information and Packaging) Regulations (UK). The product should not be used for purposes other than shown in Section 1 without first referring to the supplier and obtaining written handling instructions. As the specific conditions of the use of the product are outside the suppliers 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 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 relevant advice can be found in:

The Control of Substances Hazardous to Health Regulations 1988 (SI 1988: 1657) United Kingdom

The Manual Handling Operations Regulations 1992 (SI 1992:2793) United Kingdom

Date of Preparation: 01.02.2003



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Substances presenting a health hazard within the meaning of the Chemicals (Hazardous Information and Packaging) Regulations 1994.

(*) For full text see Section 16

Name	Concentration	Symbol Letter	R Phrases (*)
Hexamethylene-1,6-isocyanate	<0.5%	T	R23,R36/37/38, R42/43
Xylene, mixture of isomers	10-11%	Xn	R20/21, R38
Ethylbenzene	2-3%	Xn	R20
2-Methoxy-1-Methylethyl Acetate	12-13%	Xi	R36

SECTION 3. HAZARDS IDENTIFICATION

Xn

Flammable
Harmful by inhalation
May cause sensitization by inhalation
Contains isocyanates

SECTION 4. FIRST AID MEASURES

General:

In all cases of doubt, or when 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 recover position and seek medical advice.

Eye contact:

Contact lenses should be removed. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart, and seek medical advice.

Skin contact:

Remove contaminated clothing. Wash skin thoroughly with soap and water or use a proprietary skin cleaner.
Do NOT use solvents or thinners.

Ingestion:

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

SECTION 5. FIRE FIGHTING MEASURES

Extinguishing Media:

Recommended: Alcohol resistant foam, CO₂, powder, water spray/mist
Not to be used: Water jet

Recommendations:

Fire will produce dense black smoke containing hazardous products of combustion (see Section 10).
Decomposition products may be hazardous to health. **Appropriate self-contained breathing apparatus must be worn.**
Cool closed containers exposed to fire with water spray. Do not allow run-off from the fire fighting to enter drains or water courses.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Exclude sources of ignition and ventilate the area. Exclude non-essential personnel. Avoid breathing solvent 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. The contaminated area should be cleaned at once with a suitable decontaminant. e.g. Water 45%; iso-Propanol 50%; 880 Ammonia 5%. An alternative non flammable mixture is a 5% solution of sodium carbonate in water. Treat all residues with decontaminant and allow to stand until reaction has ceased before disposal. Clean preferably with a detergent; avoid the use of solvents. If the product enters drains or sewers, the local water company should be contacted immediately; in the case of contamination of streams, rivers or lakes, the National Rivers Authority or local regulatory body.

SECTION 7. HANDLING AND STORAGE

Handling

Persons with a history of asthma, allergies or chronic or recurrent respiratory disease should be employed in processes in which this product is used only under medical supervision. Solvent 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 solvent vapour in air and avoid solvent concentrations higher than the occupational exposure limits. Additionally, the product should be used only in areas from which all naked lights and other sources of ignition have been excluded. Electrical equipment should be protected to 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 inhalation of solvent vapour and spray mist. Smoking, eating and drinking should be prohibited in areas of storage and use.

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 supply container.

Good housekeeping standards and regular, safe removal of waste materials will minimise risks of spontaneous combustion and other fire hazards.

The product may charge electrostatically. Use earthing leads when transferring from one container to another. Operators should wear anti-static footwear and clothing and floors should be electrically conductive.

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.

Storage

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

Store separately from oxidising agents and strongly alkaline and strongly acidic materials, amines, alcohols and water.

Observe the label precautions. Store between 5 DEG C/41 DEG F and 25 DEG C/77 DEG F 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.

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

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Measures

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/or solvent vapours below the relevant occupational exposure limits, suitable respiratory protective equipment should be worn. (see 'Personal protection' below).

Occupational Exposure Limits

Substance	ppm (4)	mg/m-3	ppm (4)	mg/m-3	Notations (3)
Isocyanates (all) (M.E.L.)		0.02		0.07	Sen
Xylene, mixture of isomers	100	435	150	650	Sk
Ethylbenzene	100	435	125	545	
2-Methoxy-1-Methylethyl Acetate*	100	360	300	1080	

Notes:

- (1) Long term exposure limit - 8 hour time weighted average.
- (2) Short term exposure limit - 15 minute reference period.
- (3) 'Sk' indicates a risk of absorption through the skin. 'Sen' indicates a respiratory sensitiser.
- (4) 'OES' indicates an Occupational Exposure Standard; 'MEL' indicates a Maximum Exposure Limit
OEL's are taken from the current version of EH40, except those marked 'SUP', which are assigned by the supplier of the substance.

Personal Protection

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

Respiratory protection: Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. Spraying of isocyanate containing products should only be carried out in suitable spray booths or enclosures equipped with effective exhaust ventilation prevent spray mist escaping into the work area outside the spray booth. Respiratory protective equipment should be worn by all spray booth operators. (see 'Personal protection' below)

Hand protection:

When skin exposure may occur, advice should be sought from glove suppliers on appropriate types. Barrier creams may help to protect exposed areas of the 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 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.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Medium Viscosity Liquid		
Flash Point	38 DEG C +/- 2 DEG C	method	Pensky Martens Closed Cup
Viscosity	2-3 Poise	method	IXI Rotoviscometer (25 DEG C)
Specific Gravity	1.07	method	S.G Cup
Vapour Density	> 1.0 (Heavier than air)		
Lower Explosion Limited	1%		
Solubility in Water	Insoluble: reacts with water		

SECTION 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 monoxide, carbon dioxide, oxides of nitrogen, hydrogen cyanide amines and alcohols may be produced.

Keep away from alcohols and amines with which there is an exothermic reaction. Reacts with water to form CO₂. Risk of bursting in closed containers.

SECTION 11. TOXICOLOGICAL INFORMATION

Exposure to organic solvent vapours may result in adverse health effects such as irritation of the mucous membrane and the respiratory system and adverse effects on the renal and central nervous systems. Isocyanates may cause irritation of eyes, nose, throat and respiratory tract. Onset of symptoms may be delayed. Development of hyper sensitivity (difficulty in breathing, coughing, asthma) is possible; hyper-sensitive persons may display these symptoms when exposed to low concentrations. Tanning and irritation of the skin may be caused by prolonged contact.

SECTION 12. ECOLOGICAL INFORMATION

There is no data available for the product itself. The product should not be allowed to enter drains or water courses 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.

SECTION 13. DISPOSAL CONSIDERATIONS

Empty containers should be neutralized with the mixture specified in Section 6 before disposal. Do not allow to enter 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 Environmental Protection Act. (Using the information provided in this safety data sheet, advice should be obtained from the Waste Regulation Authority whether the special waste regulations apply)

SECTION 14. TRANSPORT INFORMATION

Transport within the 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 accident or spillage.

Transport Details

Class: 3 (Road and Rail) 3.3 (Sea)
 Hazard: Flammable
 Sub Hazard: None
 Packing Group: III
 Proper Shipping Name: Paint related material
 Un No: 1263

Sea Transport

Marine Pollutant: No
 EmS: 3-05
 MFAG: 310

International road/rail transport

Chemical Name: Paint related product
 Item No. 31c

Ensure drivers have adequate training

SECTION 15. REGULATORY INFORMATION

The product is classified and labeled for supply in accordance with the Chemicals (Hazard Information and Packaging) Regulations (UK) as follows:

MAIN RISK: FLAMMABLE
 SUB RISK: HARMFUL

The following details must be included on the label:-

Contains:- Hexamethylene-1,6-isocyanate
 R10 Flammable
 R20 Harmful by inhalation
 R42/43 May cause sensitisation by inhalation and skin contact
 P4 Contains isocyanates. See information supplied by manufacturer
 S23 Do not breathe vapour or spray
 S24/25 Avoid contact with skin and eyes
 S37 Wear suitable gloves
 S51 Use only in well ventilated areas

The information contained within this safety data sheet does not constitute the users own assessment of workplace risks as required by other health and safety legislation. The provisions of the Health and Safety at Work etc. Act (UK) and the Control of Substances Hazardous to Health Regulations (UK) or equivalent apply to the use of this product at work.

SECTION 16. OTHER INFORMATION

The CEPE provide the following information on isocyanate containing paints;

Paints containing isocyanates may cause irritation of the mucous membrane and the respiratory system and hyper sensitivity. Inhalation of spray mist or vapour may cause sensitisation. All precautions for handling of solvent borne paints must be followed. Vapour and spray mist must not be inhaled. Allergics, asthmatics and people prone to respiratory ailments should not work with isocyanate containing paints.

Text of R Phrases listed in Section 2

R20/21 Harmful by inhalation and in contact with skin
 R23 Toxic by inhalation
 R36/37/38 Irritating to eyes, respiratory system and skin
 R42/43 May cause sensitisation by inhalation and skin contact

The information contained in this safety data sheet is provided in accordance with the requirements of the Chemicals (Hazard Information and Packaging) Regulations (UK).

The product should not be used for purposes other than shown in Section 1 without first referring to the supplier and obtaining written handling instructions. As the specific conditions of the use of the product are outside the suppliers 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 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.

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