TRADE GRADE PRODUCTS LTD

MATERIAL SAFETY DATA SHEET

1. Identification of the substance / preparation and company.

Product name	TradePUR 201 HS
Supplier	Trade Grade Products Limited
Address	2 Thorne Way Woolsbridge Industrial Park Three Legged Cross Wimborne Dorset BH21 6FB
Emergency telephone number	01202 820177

2. Composition / Information on Ingredients.

Material description	CAS No.	EINECS No.	% Content	Health (class)	Risk (R No.)
Mixture of diphenylmethane-4,4'-diisocyanate (MDI) with polymeric constituents	101-68-8	202-966-0	14 –16 free isocyanate	Xn	R20 R36/37/38 R42/43
Dichloromethane		200-838-9	26 (Approx)	Xn	R40
N-Methyl-2-Pyrrolidone	872-50-4	212-828-1	< 6	Xi	R36/38

3. Hazards Identification.

Inhalation	Possible risk of irreversible effects. May cause sensitisation by inhalation. Methylene Chloride is not believed to pose a measurable carcinogenic risk when handled correctly.
Skin contact	Irritating to skin.
Eye contact	Irritating to eyes.

4. First Aid Measures.

Inhalation	If aerosol or vapour has been inhaled in high concentrations take the patient to fresh air and allow to rest. If there is difficulty with breathing; medical attention is required.
Skin contact	Wash off immediately with plenty of soap and water.
Eyes	Wash off immediately with copious amounts of clean water, if irritation persists seek medical attention.
Ingestion	**DO NOT** induce vomiting. If patient vomits turn to the recovery position, give water to drink and obtain medical attention (show the label where possible). Never make an unconscious person drink fluids.

5. Fire-fighting Measures.

Extinguishing media	Use carbon dioxide, dry chemical powder, sand or alcohol resistant foam.
Exposure hazard	In combustion emits toxic fumes of carbon monoxide, nitrogen oxide, isocyanate vapour and traces of hydrogen cyanide.
Personal protection	Wear self-contained breathing apparatus.

6. Accidental Release Measures.

Environmental precautions	Prevent the liquid entering drains, sewers or waterways. If the substance enters drains, sewers, etc inform the police or fire service. Contain the spillage using bunding.
Clean up of spillages	Absorb into dry earth, sand, sawdust, etc. and transfer to labelled, open top container. Keep open and wet for 7 – 14 days, the waste can then be disposed off at approved landfill site.

7. Handling and Storage.

Handling	Ensure that there is sufficient ventilation in the work place. Avoid direct contact with the substance.
Storage	Store in a cool, dry, well ventilated place. Keep containers tightly closed. Do not expose to temperatures below 10°C or above 25°C.
Packaging materials	Must only be stored and used in original packaging.

8. Exposure Controls / Personal Protection.

Exposure limits

	STD	
Dichloromethane	MEL (8 Hours)	100 ppm
N-Methyl-2-Pyrrolidone	OES	100 ppm
MDI	MEL	0.02 mg/m³

Ventilation	Ensure good ventilation by means of local extraction at point of use.
Respiratory protection	Wear respiratory protection where there is a risk of exposure to concentrations above OEL (occupational exposure limit). Self-contained breathing apparatus must be available for emergencies.
Hand protection	Wear plastic or rubber gloves.
Eye protection	Wear chemical resistant goggles.
Skin protection	Wear protective clothing with elasticised cuffs and closed neck. Boots made of PVC. Ensure safety shower is available for emergencies.
Personal hygiene	Apply skin protection crème before handling. Remove contaminated clothing. Wash hands before breaks and at the end of work.

9. Physical and Chemical Properties.

Appearance	Light brown
Odour	Chlorinated hydrocarbons
Flash point	> 200°C
Non volatiles (%)	80 (Approx.)
Specific gravity @ 20°C	1.17 (Approx.)
Viscosity @ 20°C	200 cps
Solubility	Immiscible with water

10. Stability and Reactivity.

Thermal decomposition	Polymerises at about 260°C with evolution of CO^2.
Hazardous reactions	Exothermic reaction with amines, alcohols, acids and alkalis. Reacts with water forming CO^2. Closed containers may rupture owing to increased pressure. Do not use any aluminium in the construction of application equipment (spray guns, pipe work, etc.). Possible reaction with the solvent.
Hazardous decomposition products	No hazardous decomposition products when handled and stored correctly. When heated above 600°C the solvent will decompose evolving carbon monoxide, hydrogen chloride and small quantities of phosgene.

11. Toxicological Information.

LD50 Oral (rat)	> 500 mg/kg
Eye contact	Strong irritation, lacrymation, burning.
Skin contact	Dehydration, possible sensitisation.
Routes of exposure	Refer to section 4 for routes of exposure and corresponding symptoms.

12. Ecological Information.

Mobility	Dichloromethane's potential for mobility in soil is high.
Degradability	Dichloromethane is expected to biodegrade only very slowly (environment) and biodegradation rate is expected to increase in water and soil.
Aquatic toxicity	Dichloromethane: Acute LC50 for flathead minnow 193 – 330 mg/L Acute LC50 for flea daphnia magna 27 mg/L
Adverse effects	Harmful to aquatic organisms. Isocyanates; when in contact with water; evolve CO^2 and form insoluble solids. Do not allow to enter drains, sewers or water courses.

13. Disposal Consideration.

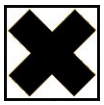
Disposal of the wet adhesive is governed by the Control of Pollution (Special Wastes) Regulations 1980. Any wet remaining product on the walls of the drums should be neutralised with aqueous ammonia and left with bung holes open for 48 hours, remove labels from drums before emptying and disposing of in the normal manner. This ensures that no free isocyanates remain in the drums. The ammonia solution can be disposed in accordance to local regulations.

14. Transport Information.

UK	UN2810, Packing class 6.1, Transport category 3.
IMO	PSN Toxic liquid, organic, nos, (Dichloromethane), Class 6.1, UN2810 Group III, Flashpoint 70°C, EmS 6.1-02
ADR	UN2810, Toxic liquid, organic, nos, (Dichloromethane) Class 6.1, Group III.

15. Regulatory Information.

CHIP Label for supply



HARMFUL

CHIP Risk phrases	R36/37/38	Irritating to eyes, respiratory system and skin.
	R42/43	May cause sensitisation by inhalation and skin contact.

CHIP Safety phrases	S23	Do not breathe fumes.
	S24/25	Avoid contact with skin and eyes.
	S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical attention.
	S28	After contact with skin wash with plenty of soap and water.
	S36/37	Wear suitable protective clothing and gloves.
	S38	In case of insufficient ventilation, wear suitable respiratory equipment.
	S45	In case of accident or if you feel unwell, seek medical advice immediately (show the label if possible).
	S63	In case of accident by inhalation, remove casualty to fresh air and keep at rest.

Regulatory references

CHIP Regulations 1996
Health and Safety at Work Act 1974
COSHH Regulations 1994

16. Other Information.

Other information

This adhesive should be used in accordance with the supplier's recommendations.

The information provided in this data sheet is based on our current knowledge of the product and is intended to describe it for the purpose of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

Information sources

CHIP Approved supply list.
CHIP Approved guide to the classification and labelling of substances and preparations dangerous for supply.
CHIP Approved carriage list.
Raw materials suppliers literature.
Occupational exposure limits 1994 (EH40).