

SAFETY DATA SHEET

Parathane Finish Clear

Version: 3

Review date: 08/01/2007

91/155/EC (2001/58/EC) - ISO 11014-1

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product name: Parathane Finish Clear

Uses or/and applications: One component polyurethane coating.

Supplier: Icopal SAS
12 Rue de la Renaissance
FR-92184 Antony Cedex
France
Phone: +33 1 40 96 35 00
Fax: +33 1 46 66 24 85
E-mail: contact_fr@icopal.com

Emergency phone number (to be used by the practising doctor): UK - National Poisons Information Service Phone: 44 / 191 22 5131
B - Centre Antipoisons Tél: +32 (0) 70 245 245

2. COMPOSITION / INFORMATION ON INGREDIENTS

Preparation name: Parathane Finish Clear

Description of the preparation: Solution of polyurethane oligomers in xylene

Component(s) contributing to the health hazard: • o-xylene [1]; p-xylene [2]; m-xylene [3]; xylene [4] - Id No: 601-022-00-9 - CAS no: 1330-20-7 - EC no: 215-535-7
Conc. wt.(%): 40 < C <= 50 - Classification: • R 10 • Xn; R 20/21 • Xi; R 38 •
• 4,4#-methylenediphenyl diisocyanate [1]; diphenylmethane-4,4#-diisocyanate [1]; 2,2#-methylenediphenyl diisocyanate [2]; diphenylmethane-2,2#-diisocyanate [2]; o-(p-isocyanatobenzyl)phenyl isocyanate [3]; diphenylmethane-2,4#-diisocyanate [3]; methylene - Id No: 615-005-00-9 - CAS no: 101-68-8
Conc. wt.(%): 1 < C <= 5 - Classification: •Xn; R20•Xi; R36/37/38•R42/43•

3. HAZARDS IDENTIFICATION

Most important hazards: Vapour / air mixture is flammable.
Harmful by inhalation and if swallowed.
The preparation is a sensitizing of the skin and the breathing apparatus. It is also irritating for the skin and a prolonged contact can increase this effect.
In confined atmosphere, take suited measures

Specific hazards: Contains isocyanates. May cause allergic reactions.

4. FIRST AID MEASURES

General advice: 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 the 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.

Skin contact: Wash skin with plenty of water and soap. Take off contaminated clothes. Do NOT use solvents or thinners.
If skin irritation persists, take 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.
See an ophthalmologist if an irritation occurs.

Ingestion: Rinse mouth, do not drink anything, keep quiet, and go immediately to hospital or to a doctor. Do not induce vomiting.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media: alcohol-resistant foam, carbon dioxide (CO₂), powder, water spray in sufficient quantity.

Extinguishing media which must NOT be used for safety reasons: Do not use a solid water stream as it may scatter and spread fire.

Specific method(s): Cool closed containers exposed to fire with water spray.
Do not allow run-off from fire fighting to enter drains or water courses.

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Specific fire hazard(s): Fire will produce dense black smoke. Decomposition products may be a hazard to health. Appropriate self-contained breathing apparatus may be required.

Special protective equipment for fire-fighters: Wear a self contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal precaution(s): Exclude sources of ignition and ventilate the area. Exclude non-essential personnel. Avoid breathing vapours. Refer to protective measures listed in Sections 7 and 8.

Environmental precaution(s): Do not allow to enter drains or water courses. 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.

Method(s) for cleaning up: Contain and collect spillages with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth
Place in a suitable container for disposal in accordance with the waste regulations (see Section 13).
Clean preferably with a detergent - Avoid the use of solvents.

7. HANDLING AND STORAGE

Handling

- Precaution(s): Avoid any direct contact with the material.
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 limits.
Smoking, eating and drinking is prohibited in areas of storage and use.
For personal protection, see Section 8.
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.
- Technical condition(s): In the event of use in an insufficiently ventilated zone, set up proper means of extraction of air. 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.
Never empty drum with air pressure, because drum is not appropriated.
- Safe handling advice(s): 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 vapour and spray mist.
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

- Precaution(s): Observe the label precautions.
No smoking. Prevent unauthorised access.
- Storage condition(s): Store in a dry, well ventilated place away from sources of heat, ignition and direct sunlight.
Store at temperatures between 0°C and 40°C
Containers which are opened should be properly resealed and kept upright to prevent leakage.
Privilege the fast use of started packing.
- Separation of incompatible product(s): Store separately from oxidising agents and strongly alkaline and strongly acidic materials.
- Packaging / tank material: made of the same material as the supply container.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering measure(s): The product is used normally and preferably in naturally ventilated places.
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.

Control parameter(s):

- Exposure limit(s):
 - o-xylene [1]; p-xylene [2]; m-xylene [3]; xylene [4]: VME ppm = 50 - VME mg/m³ = 221 - VLE ppm = 100 - VLE mg/m³ = 442
 - 4,4#-methylenediphenyl diisocyanate [1]; diphenylmethane-4,4#-diisocyanate [1]; 2,2#-methylenediphenyl diisocyanate [2]; diphenylmethane-2,2#-diisocyanate [2]; o-(p-isocyanatobenzyl)phenyl isocyanate [3]; diphenylmethane-2,4#-diisocyanate [3]; methylene: VME ppm = 0,005 - VME mg/m³ = 0,051

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Personal protection equipment:

- 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
Mask with cartridge (organic vapors) or, according to the case, self-rescuer.
These conditions meet typically only in confined atmosphere.
- Hand protection: polyethylene or polypropylene gloves in combination with fabric under-gloves
No PVC or other plastic material gloves
- Skin and body protection: Grossly contaminated clothing should be removed and the skin washed with soap and water or a proprietary skin cleaner.
- Eye protection: Eye protection designed to protect against liquid splashes should be worn.
- Hygiene measure(s): Do not eat, drink, or smoke during work.

9. PHYSICAL AND CHEMICAL PROPERTIES

General information

- Physical state / form: liquid
- Colour: colourless / light yellow
- Odour: Typically organic solvent.

Important health, safety and environmental information

- PH: Not applicable.
- Boiling point/range: 138 -144°C
- Melting point/range: Not applicable.
- Flash point: 28°C
- Auto-ignition temperature: 460 °C (xylène)
- Explosion limits: Low: 1,7% by volume (xylene).
Upper: 7,5% by volume (xylene).
- Relative density (water = 1): 0,98 @ 20°C
- Viscosity: 45* 10e-6 m²/s @ 40°C
90 cst @ 20°C
- Water solubility: 0
- Fat solubility: practically not soluble
- Solvent solubility: Soluble while in liquid form - Non soluble once reacted.
- Partition coefficient n-octanol/water: Not determined.
- Evaporation rate: 13,5 (ether=1)

10. STABILITY AND REACTIVITY

- Stability: Stable under the recommended storage and handling conditions. (See Section 7).
In its native bucket, the material can be used after 12 months storage.
- Condition(s) to avoid: Presence of high humidity levels while preparing (stirring) the product or pouring it from bucket to bucket.
- Material(s) to avoid: Water, amines, alcohols.
- Hazardous decomposition products: When exposed to high temperatures may produce hazardous decomposition products such as carbon monoxide and dioxide, smoke, NxOy..

11. TOXICOLOGICAL INFORMATION

- General information(s): There is no data available on the product itself.
- Acute toxicity
- Inhalation: Inhalation may cause asthmatic reactions.
Inhalation of airborne droplets or aerosols may cause irritation of the respiratory tract. Such a situation must be avoided and the use of self contained breathing apparatus is then mandatory.
- Skin contact: Prolonged or repeated contact with the skin or mucous membrane may result in irritant

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	symptoms such as redness, blistering or dermatitis. Onset of symptoms may be delayed.
- Eyes contact:	Liquid splashes in the eye may cause irritation.
- Ingestion:	Ingestion may lead to severe respiratory difficulties, stimulation of the central nervous system and in extreme cases unconsciousness.
Sensitisation:	Cases of allergic skin reaction have been observed.
Toxicity of repeated or prolonged exposure:	Lungs may be affected by inhalation of high concentrations. None the components is registered on the I.A.R.C. list for carcinogenic products.

12. ECOLOGICAL INFORMATION

General information(s):	There is no data available on 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.
Environmental toxicity:	Ecological problems are not known or expected under normal use.
Other adverse effects	

13. DISPOSAL CONSIDERATIONS

Waste / unused products:	Do not allow into drains or water courses or dispose of where ground or surface waters may be affected.
Contaminated packaging:	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.

Further Information(s):

14. TRANSPORT INFORMATION

General information(s):	Transport followed ADR, IMDG, IATA
UN N°:	1139
Land (Road / Railway: ADR/RID)	
- Proper shipping name:	COATING SOLUTION (includes surface treatments or coatings used for industrial or other purposes such as vehicle under coating, drum or barrel lining)
- Class:	3
- Verpakkingsgroep:	III
- ADR/RID-Labels:	3
- Code danger:	30
- Classification code:	F1 640E
- Packing instructions:	P001 IBC03 LP01 R001
Sea (IMDG)	
- Proper shipping name:	SOLUTION D'ENROBAGE - COATING SOLUTION (includes surface treatments or coatings used for industrial purposes such as vehicle under coating, drum or barrel lining)
- Class:	3
- Packaging group:	III
- Marine pollutant:	.
- EmS number:	F-E, S-E
- IMDG-Label(s):	3
- Packing instructions:	P001 LP01
Air (ICAO/IATA)	
- Proper shipping name:	SOLUTION D'ENROBAGE
- ICAO/IATA class:	3
- Packing group:	III
- ICAO/IATA-Labels:	3

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- Important remarks: Passager and cargo aircraft

15. REGULATORY INFORMATION

Labelling: According to european directives on classification, packaging and labelling of dangerous substances 1999/45/CE

EC number: Not applicable.

Contains: • o-xylene [1]; p-xylene [2]; m-xylene [3]; xylene [4]

Symbol(s): Xn - Harmful



R-phrase(s): 10 Flammable.
20/21 Harmful by inhalation and in contact with skin.
36/37/38 Irritating to eyes, respiratory system and skin.
42/43 May cause sensitization by inhalation and skin contact.

S-phrase(s): 2 Keep out of the reach of children.
13 Keep away from food, drink and animal feedingstuffs.
22 Do not breathe dust.
23 Do not breathe gas / fumes / vapour / spray.
36/37 Wear suitable protective clothing and gloves.
38 In case of insufficient ventilation, wear suitable respiratory equipment.
45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
46 If swallowed, seek medical advice immediately and show this container or label.
51 Use only in well-ventilated areas.

Further information(s): Contains isocyanates. See information supplied by the manufacturer. Contains 4,4#-methylenediphenyl diisocyanate [1]; diphenylmethane-4,4#-diisocyanate [1]; 2,2#-methylenediphenyl diisocyanate [2]; diphenylmethane-2,2#-diisocyanate [2]; o-(p-isocyanatobenzyl)phenyl isocyanate [3]; diphenylmethane-2,4#-diisocyanate [3]; methylene. May produce an allergic reaction.

16. OTHER INFORMATION

Item nr 2 : R-phrase(s) R10 Flammable.
R20/21 Harmful by inhalation and in contact with skin.
R38 Irritating to skin.
R20 Harmful by inhalation.
R36/37/38 Irritating to eyes, respiratory system and skin.
R42/43 May cause sensitization by inhalation and skin contact.

Important remarks: 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 user is always 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.

Uses or/and applications: One component polyurethane coating.

Restrictions: The product should not be used for purposes other than those shown in Section 16 without first referring to the supplier and obtaining written handling instructions.

History

- First edition date: 09/12/2004

- Previous revision date: 12/08/2005

- Review date: 08/01/2007

- Version: 3

Written by: TDD / FDS 43