



SAFETY DATA SHEET
according to Directive 2001/58/EC

1. IDENTIFICATION OF THE PREPARATION AND OF THE COMPANY

1.1. Identification of the preparation :

- Product Name : Desothane HS Activator
- Product identification : 8300B

1.2. Use of the preparation :

- Activator

1.3. Company identification :

PPG Industries (UK) Ltd
3 Darlington Road
Shildon
Co Durham DL4 2QP
England

- Technical contact : Aerospace Laboratory
- Tel : +44 (0) 1388 772 541
- Fax : +44 (0) 1388 774 373

1.4. Emergency telephone :

- Company emergency telephone number : +44 (0) 1388 772 541

2. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical family : Polyisocyanate

Substances presenting a health or environmental hazard within the meaning of the Dangerous Substances Directive 67/548/EC and amendments.
For the hazards of the preparation, see Section 3.

SUBSTANCES % by Wt in the product	SYMBOL and R(*) phrases of the pure substances	CAS number	EINECS / ELINCS
HEXAMETHYLENE-DI-ISOCYANATE 0.2 - < 0.5 %	T R23,R36/37/38,R42/43	822-06-0	212-485-8
XYLENE (MIXTURE OF ISOMERS) 3 - < 5 %	Xn R20/21,R38,R10	1330-20-7	215-535-7
HEXANE-1;6-DI-ISOCYANATE; HOMOPOLYMER 80 - < 90 %	Xn R42/43	28182-81-2	500-060-2

(*) See full text of phrases under Section 16.

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3. HAZARDS IDENTIFICATION

- Xn - HARMFUL
- May cause sensitization by inhalation and skin contact.
- FLAMMABLE.

4. FIRST AID MEASURES

General :

In all cases of doubt or when symptoms persist, seek medical attention. Have Safety Data Sheet information available. Never give anything by mouth to an unconscious person.

Inhalation :

Remove to fresh air, keep patient warm and at rest. If breathing has stopped, administer artificial respiration. Give nothing by mouth. If unconscious, place in recovery position and seek medical advice.

Eye contact :

Irrigate copiously with clean, fresh water for at least 15 minutes, holding the eyelids apart, and seek medical advice.

Skin contact :

Remove contaminated clothing. Wash skin thoroughly with soap and water or use recognized skin cleaners. Do NOT use solvents or thinners.

Ingestion :

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

5. FIRE-FIGHTING MEASURES

Extinguishing media :

- . Recommended: universal resistant foam, CO2, powder.
- . Not to be used: water jet.

Recommendations :

- . Fire will produce dense black smoke. Exposure to decomposition products may cause a Health Hazard. Fire fighters should wear self-contained breathing apparatus.
- . Water mist may be used to cool closed containers to prevent pressure build-up and possible auto-ignition and explosion when exposed to extreme heat.
- . Do not weld, expose to extreme heat or ignition sources, empty containers which have contained flammable products.
- . 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. Avoid breathing vapours by using appropriate respiratory protective equipment. Refer to protective measures listed in sections 7 & 8.
- Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth. Place in a suitable container.
- The contaminated area should be cleaned up immediately with a suitable decontaminant. One possible (flammable) decontaminant comprises (by volume) : water (45 parts), ethanol or isopropyl alcohol (50 parts), concentrated (d : 0,880) ammonia solution (5 parts). A non flammable alternative is sodium carbonate (5 parts), water (95 parts). Add the same decontaminant to the remnants and allow to stand for several days in non-sealed container. When no further reaction occurs, close the container and dispose of in accordance with local waste regulations (see section 13). Do not allow to enter drains or watercourses.
- If the product contaminates lakes, rivers or sewers, inform water authorities in accordance with local regulations.

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7. HANDLING AND STORAGE

7.1 Handling

- Smoking, eating and drinking should be prohibited during handling.
- Keep containers tightly closed. Any containers which are opened should be carefully resealed.
- Avoid skin and eye contact. Avoid inhalation in case of exposure to vapour and spray mist.

Packaging materials :

- . Recommended: keep preferably in original container.
- . Avoid :
 - * Those sensitive to solvents
- Handle and open containers with care to avoid sudden ejections. Never use pressure to empty : container is not a pressure vessel. Clean or discard contaminated clothing and shoes.
- Preparation may charge electrostatically : always use earthing leads when transferring between containers. Operators should wear antistatic footwear and clothing, and floors should be electrically conductive.
- Vapours are heavier than air and may spread along floors. Vapours may form explosive mixtures with air. Prevent the creation of flammable or explosive concentrations of vapour in air, and avoid vapour concentration 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. Isolate from sources of heat, sparks and open flame. Non-sparking tools should be used.
- Wear appropriate respiratory equipment when paint spraying, even outdoors. In all cases when working in a confined area or spraybooth, or where ventilation is unlikely to be sufficient to control particulates and solvent vapour, operators should wear a compressed airfed respirator during the spraying process.
- Precautions should be taken to minimize exposure to atmospheric humidity or water : CO₂ will be formed, which in closed containers can result in increased pressure. Care should be taken when reopening.

7.2 Storage

Observe label precautions. Store between 0 and 35°C in a dry, clean and well ventilated place, away from sources of heat, ignition, and direct sunlight.
For flash points between 23 and 32 °C store in accordance with the Highly Flammable Liquids and Liquefied Petroleum Gas Regulations 1972.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Persons with a history of asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which the preparation is used.

8.1 Engineering measures

Avoid the inhalation of vapour, spray mist and particulates. This should be achieved by the provision of local exhaust ventilation and good general extraction to keep air-borne concentration below the Occupational Exposure Limits (OEL). If these are not sufficient to comply with OEL, suitable respiratory protection must be worn.

Airfed protective respiratory equipment must be worn by spray operator even when good ventilation is provided.

8.2 Exposure limits

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Substances	----- Exposure limits (.)-----				Note
	LTEL		STEL		
	ppm	mg/m3	ppm	mg/m3	
HEXAMETHYLENE-DI-ISOCYANATE	-	0.02	N=C=O	0.07	M SE
XYLENE (MIXTURE OF ISOMERS)	50	220	100	441	O S
HEXANE-1;6-DI-ISOCYANATE; HOMOPOLYMER	-	0.02	N=C=O	0.07	M SE

(.) : See Guidance Note EH 40 : " Occupational exposure limits "
 LTEL : Long Term Exposure Limit, 8 hours time weighted average
 STEL : Short Term Exposure Limit, 15 minutes time weighted average
 S : Can be absorbed through skin
 M : Maximum exposure limit
 O : Occupational exposure standard
 RD : Respirable dust
 SE : Sensitising
 - : Not estimated

8.3 Personal protection

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 :

By spraying : airfed respirator

By operations other than spraying : in well ventilated areas, airfed respirators could be replaced by a combination of charcoal filter and particulate filter mask according to the type of contaminants, following official and manufacturer's instructions including proper fitting.

Hand protection :

Polyethylene or polypropylene gloves with textile under gloves are required. PVC or rubber gloves are not recommended.

Eye protection :

Use safety glasses to protect against splashes.

Skin protection :

Personnel should wear protective clothing made of antistatic and fire resistant fibres. All parts of the body should be washed after contact.

Use good hygiene and industrial practices, keeping working clothes clean.

9. PHYSICAL AND CHEMICAL PROPERTIES

- Physical state at 20°C : Liquid
- Flash point : 25°C Method : ISO 3679
- Viscosity : 60 ~ 100 secs Method : ISO 2431 (6mm)
- Specific gravity at 20°C : 1.1 g/cm3 Method : ISO 2811
- Vapour density : > air
- Lower explosion limit (vol %) : 1
- Upper explosion limit (vol %) : 7
- Miscibility in water at 20°C : not miscible
- pH : not applicable
- Percent volatile by weight : 10.0 by volume : 12.0
- Vapour pressure at 20°C : 4 mm Hg

10. STABILITY AND REACTIVITY

Stable under recommended storage and handling conditions (see section 7).

In case of combustion, may produce hazardous decomposition products such as :

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- Carbon monoxide
- Oxides of Nitrogen

Exothermic reactions MAY ALSO occur with amines and alcohols. The preparation reacts slowly with water resulting in evolution of CO₂ which produces a risk of bursting of closed containers.

11. TOXICOLOGICAL INFORMATION

There are no data available on the preparation itself. The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and classified for toxicological hazards accordingly. See Sections 2 and 15 for details.

Exposure to component solvents vapours at concentrations in excess of the stated Occupational Exposure Limits may result in adverse health effects such as mucous membrane and respiratory system irritation 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.

Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic dermatitis and absorption through the skin.

The liquid splashed in the eyes may cause irritation and reversible damage.

Based on the properties of the isocyanate components and considering toxicological data on similar preparations, this preparation may cause acute irritation and/or sensitization of the respiratory system leading to an asthmatic condition, wheeziness and a tightness of the chest. Sensitized persons may subsequently show asthmatic symptoms when exposed to atmospheric concentrations well below the OEL. Repeated exposure may lead to permanent respiratory disability.

12. ECOLOGICAL INFORMATION

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

The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and is not classified as dangerous for the environment.

13. DISPOSAL CONSIDERATIONS

The provisions of Council Directive 91/689/EEC and subsequent Amendments and Decisions apply to wastes from the product as supplied.

Hazardous Properties :
H3-B Flammable
H5 Harmful

Do not allow into drains or water courses.

Waste and emptied containers must be disposed in accordance with :

- Control of Pollution Act 1974,
- Special Waste Regulations 1996,
- Duty of Care Regulations 1992.

They should be recycled or disposed of through a licenced waste management facility.

14. TRANSPORT INFORMATION

- PROPER SHIPPING NAME : Paint 640E

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- ADR/RID
Hazard class : 3
Packaging group : III
ADR hazard : 30
UN number : 1263
Label : 3

- Items with no more than 5 litres per inner packaging and not more than 45 litres per package are classified as limited quantities according to chapter 3.4.6.

- OACI
Hazard class : 3
Packaging group : III
UN number : 1263
IATA passenger : 309 60L
IATA cargo : 310 220L
Label : FLAMMABLE LIQUID

- IMDG
Hazard class : 3
Packaging group : III
UN number : 1263
Label : 3

15. REGULATORY INFORMATION

LABEL

According to the Directive (1999/45/EC), relating to the classification packaging and labelling of dangerous substances and preparations, the product is labelled as follows :



- Xn - HARMFUL
- CONTAINS : : HEXANE-1;6-DI-ISOCYANATE; HOMOPOLYMER
Contains : 'HEXAMETHYLENE-DI-ISOCYANATE'. May produce an allergic reaction.
- R42/43 May cause sensitization by inhalation and skin contact.
- R10 FLAMMABLE.
- S46 If swallowed, seek medical advice immediately and show this container or label.
- S23+S38 Do not breathe vapour / spray. In case of insufficient ventilation, wear suitable respiratory equipment.
- S36/37 Wear suitable protective clothing and gloves.
- P91 Contains isocyanates. See information supplied by the manufacturer.
 - . This information is provided by the present Safety Data Sheet.

16. OTHER INFORMATION

Full text of R phrases with N° appearing in Section 2 :

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

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- R38 Irritating to skin.
- R10 FLAMMABLE.

The information contained in this data sheet is based on present scientific and technical knowledge. AS OF : 15-9-2004

The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by PPG, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.

- The information contained in this Safety Data Sheet is provided in accordance with the requirements of the Chemicals (Hazard Information and Packaging) Regulations.
- The provision of the Health and Safety at Work Act and the Control of Substances Hazardous to Health Regulations apply to the use of this product at work.

END OF SAFETY DATA SHEET