Safety Data Sheet
Dow Chemical Company Ltd

Product Name: INSTA-STIK (TM) Multi-Purpose Adhesive

Revision Date: 2006/10/07
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Dow Chemical Company Ltd encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

1. Identification of the substance/preparation and of the company/undertaking

Product Name

INSTA-STIK (TM) Multi-Purpose Adhesive

Use of the substance/preparation
Adhesive spray.

COMPANY IDENTIFICATION
Dow Chemical Company Ltd
2 Heathrow Blvd., 284 Bath Rd
UB7 0DQ West Drayton, Middlesex, EN
United Kingdom

Customer Information Number: 0208-917-5000

EMERGENCY TELEPHONE
24-Hour Emergency Contact: +44 (0) 1553 761 251
Local Emergency Contact: 00 44 155 37 61 251

2. Composition/information on ingredients

Component	Amount	Classification:	CAS #	EC #
Prepolymer of MDI and polyol	40.0 - 60.0 %	Not classified.	Confidential	Polymer
4,4'-Methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate (MDI)	10.0 - 20.0 %	Xn: R20; Xi: R36/37/38; R42/43	101-68-8	202-966-0
Methylenediphenyl diisocyanate, homopolymer	10.0 - 20.0 %	Not classified.	39310-05-9	Polymer
Tris(1-chloro-2-propyl) phosphate	5.0 - 15.0 %	Xn: R22	13674-84-5	237-158-7
Isobutane	2.0 - 6.0 %	F+: R12	75-28-5	200-857-2
Propane	1.0 - 3.0 %	F+: R12	74-98-6	200-827-9
Dimethyl ether	2.0 - 6.0 %	F+: R12	115-10-6	204-065-8

See Section 16 for full text of R-phrases.

* Indicates a Trademark

3. Hazards Identification

Extremely flammable.
Irritating to eyes, respiratory system and skin.
May cause sensitization by inhalation and skin contact.

May cause slight temporary corneal injury. May stain skin. Material may stick to skin causing irritation upon removal. Excessive exposure may cause irritation to upper respiratory tract (nose and throat) and lungs. May cause pulmonary edema (fluid in the lungs.) Asthma-like symptoms may include coughing, difficult breathing and a feeling of tightness in the chest. Occasionally, breathing difficulties may be life threatening.

4. First-aid measures

Eye Contact: Immediately flush eyes with water; remove contact lenses, if present, after the first 5 minutes, then continue flushing eyes for at least 15 minutes. Obtain medical attention without delay, preferably from an ophthalmologist.
Skin Contact: Remove material from skin immediately by washing with soap and plenty of water. Remove contaminated clothing and shoes while washing. Seek medical attention if irritation persists. Wash clothing before reuse. An MDI skin decontamination study demonstrated that cleaning very soon after exposure is important, and that a polyglycol-based skin cleanser or corn oil may be more effective than soap and water. Discard items which cannot be decontaminated, including leather articles such as shoes, belts and watchbands.
Inhalation: Move person to fresh air. If not breathing, give artificial respiration; if by mouth to mouth use rescuer protection (pocket mask, etc). If breathing is difficult, oxygen should be administered by qualified personnel. Call a physician or transport to a medical facility.
Ingestion: Do not induce vomiting. Call a physician and/or transport to emergency facility immediately.
Notes to Physician: If lavage is performed, suggest endotracheal and/or esophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. The decision of whether to induce vomiting or not should be made by a physician. May cause respiratory sensitization or asthma-like symptoms. Bronchodilators, expectorants and antitussives may be of help. Treat bronchospasm with inhaled beta2 agonist and oral or parenteral corticosteroids. Respiratory symptoms, including pulmonary edema, may be delayed. Persons receiving significant exposure should be observed 24-48 hours for signs of respiratory distress. Maintain adequate ventilation and oxygenation of the patient. If you are sensitized to diisocyanates, consult your physician regarding working with other respiratory irritants or sensitizers. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.
Medical Conditions Aggravated by Exposure: Excessive exposure may aggravate preexisting asthma and other respiratory disorders (e.g. emphysema, bronchitis, reactive airways dysfunction syndrome).

5. Fire Fighting Measures

Extinguishing Media: Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam. Do not use direct water stream. May spread fire. Alcohol resistant foams (ATC type) are preferred. General purpose synthetic foams (including AFFF) or protein foams may function, but will be less effective.
Fire Fighting Procedures: Keep people away. Isolate fire and deny unnecessary entry. Stay upwind. Keep out of low areas where gases (fumes) can accumulate. Water is not recommended, but may be applied in large quantities as a fine spray when other extinguishing agents are not available. Fight fire from protected location or safe distance. Consider the use of unmanned hose holders or monitor nozzles. Immediately withdraw all personnel from the area in case of rising sound from venting safety device or discoloration of the container. Do not use direct water stream. May spread fire. Move container from fire area if this is possible without hazard. Use water spray to cool fire-exposed containers and fire-affected zone until fire is out.

Special Protective Equipment for Firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). Avoid contact with this material during fire fighting operations. If contact is likely, change to full chemical resistant fire fighting clothing with self-contained breathing apparatus. If this is not available, wear full chemical resistant clothing with self-contained breathing apparatus and fight fire from a remote location. For protective equipment in post-fire or non-fire clean-up situations, refer to the relevant sections.
Unusual Fire and Explosion Hazards: Product reacts with water. Reaction may produce heat and/or gases. This reaction may be violent. Container may rupture from gas generation in a fire situation. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids. Dense smoke is produced when product burns.
Hazardous Combustion Products: During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Nitrogen oxides. Isocyanates. Hydrogen cyanide. Carbon monoxide. Carbon dioxide. Hydrogen chloride. Phosphorous compounds. Phosphorus oxides.

6. Accidental Release Measures

Steps to be Taken if Material is Released or Spilled: Spills should be contained by, and covered with large quantities of sand, earth or any other readily available absorbent material which is then brushed in vigorously to assist absorption. The mixture can then be collected into drums and removed for disposal. Wash area from residues with soap and water and rinse down.
Personal Precautions: Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection. Only trained and properly protected personnel must be involved in clean-up operations. Keep unnecessary and unprotected personnel from entering the area. If available, use foam to suppress vapors. See Section 10 for more specific information.
Environmental Precautions: Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information. Should the product enter sewers or drains, it should be pumped into a covered, vented container; the cover should be placed loosely on the container but not made pressure tight. Emergency services may need to be called to assist in the cleanup operation.

7. Handling and Storage

Handling
General Handling: Keep away from heat, sparks and flame. Use only with adequate ventilation.

Storage
Keep in a cool, well-ventilated place. Keep away from sources of ignition. See Section 10 for more specific information.

Storage Period:	**Storage temperature:**
12 Months	15 - 25 °C

8. Exposure Controls / Personal Protection

Exposure Limits

Component	List	Type	Value
4,4'-Methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate (MDI)	Ireland OELV	TWA as NCO	0.02 mg/m3 SEN
	Ireland OELV	STEL as NCO	0.07 mg/m3 SEN
	ACGIH	TWA	0.005 ppm
	UK WEL	TWA as NCO	0.02 mg/m3 SEN

	UK WEL	STEL as NCO	0.07 mg/m3 SEN
Methylenediphenyl diisocyanate, homopolymer	Ireland OELV	TWA as NCO	0.02 mg/m3 R-SEN
	Ireland OELV	STEL as NCO	0.07 mg/m3 R-SEN
	ACGIH	TWA	0.005 ppm
	UK WEL	TWA as NCO	0.02 mg/m3 R-SEN
	UK WEL	STEL as NCO	0.07 mg/m3 R-SEN
Isobutane	ACGIH	TWA	1,000 ppm
Propane	ACGIH	TWA	1,000 ppm
	UK WEL		Included in the regulation but with no data values. See regulation for further details
Propane	Ireland OELV	HAZ_DES	Simple asphyxiant.
	UK WEL	HAZ_DES	Asphyxiant.
Dimethyl ether	Ireland OELV	TWA	1,920 mg/m3 1,000 ppm
	WEEL	TWA	1,880 mg/m3 1,000 ppm
	EU IOELV	TWA	1,920 mg/m3 1,000 ppm
	UK WEL	TWA	766 mg/m3 400 ppm
	UK WEL	STEL	958 mg/m3 500 ppm

A "SEN" notation following the exposure guideline refers to the potential to produce sensitization, as confirmed by human or animal data.

Personal Protection

Eye/Face Protection: Use chemical goggles. Chemical goggles should be consistent with EN 166 or equivalent. Eye wash fountain should be located in immediate work area.

Skin Protection: Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task. Remove contaminated clothing immediately, wash skin area with soap and water, and launder clothing before reuse or dispose of properly. Items which cannot be decontaminated, such as shoes, belts and watchbands, should be removed and disposed of properly.

Hand protection: Use chemical resistant gloves classified under Standard EN374: Protective gloves against chemicals and micro-organisms. Examples of preferred glove barrier materials include: Butyl rubber. Chlorinated polyethylene. Polyethylene. Ethyl vinyl alcohol laminate ("EVAL"). Examples of acceptable glove barrier materials include: Natural rubber ("latex"). Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Viton. Avoid gloves made of: Polyvinyl chloride ("PVC" or "vinyl"). When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374) is recommended. When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374) is recommended. NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

Respiratory Protection: Atmospheric levels should be maintained below the exposure guideline. When atmospheric levels may exceed the exposure guideline, use an approved air-purifying respirator equipped with an organic vapor sorbent and a particle filter. For situations where the atmospheric levels may exceed the level for which an air-purifying respirator is effective, use a positive-pressure air-supplying respirator (air line or self-contained breathing apparatus). For emergency response or for situations where the atmospheric level is unknown, use an approved positive-pressure self-contained breathing apparatus or positive-pressure air line with auxiliary self-contained air supply.

Use the following CE approved air-purifying respirator: Organic vapor cartridge with a particulate pre-filter, type AP2.
Ingestion: Avoid ingestion of even very small amounts; do not consume or store food or tobacco in the work area; wash hands and face before smoking or eating.

Engineering Controls
Ventilation: Use only with adequate ventilation. Local exhaust ventilation may be necessary for some operations. Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines. Exhaust systems should be designed to move the air away from the source of vapor/aerosol generation and people working at this point. The odor and irritancy of this material are inadequate to warn of excessive exposure.

9. Physical and Chemical Properties

Physical State	Foam
Color	Brown
Odor	Musty
Flash Point - Closed Cup	No test data available
Flammable Limits In Air	**Lower**: No test data available
	Upper: No test data available
Autoignition Temperature	No test data available
Vapor Pressure	No test data available
Boiling Point (760 mmHg)	No test data available.
Vapor Density (air = 1)	No test data available
Specific Gravity (H2O = 1)	No test data available
Freezing Point	No test data available
Melting Point	No test data available
Solubility in Water (by weight)	reacts with water
pH	No test data available

10. Stability and Reactivity

Stability/Instability
Stable under recommended storage conditions. See Storage, Section 7.
Conditions to Avoid: Avoid temperatures above 40°C (104°F) Can react with itself at temperatures above 130°C (266°F) Exposure to elevated temperatures can cause product to decompose. Generation of gas during decomposition can cause pressure in closed systems. Pressure build-up can be rapid. Avoid moisture. Material reacts slowly with water, releasing carbon dioxide which can cause pressure buildup and rupture of closed containers. Elevated temperatures accelerate this reaction.

Incompatible Materials: Avoid contact with: Acids. Alcohols. Amines. Water. Ammonia. Bases. Metal compounds. Moist air. Strong oxidizers. Products based on diisocyanates like TDI and MDI react with many materials to release heat. The reaction rate increases with temperature as well as with increased contact; these reactions can become violent. Contact is increased by stirring or if the other material acts as a solvent. Products based on diisocyanates such as TDI and MDI are not soluble in water and will sink to the bottom, but react slowly at the interface. The reaction forms carbon dioxide gas and a layer of solid polyurea. Reaction with water will generate carbon dioxide and heat. Avoid contact with metals such as: Aluminum. Zinc. Brass. Tin. Copper. Avoid contact with absorbent materials such as: Moist organic absorbents. Avoid unintended contact with polyols. The reaction of polyols and isocyanates generate heat.

Hazardous Polymerization
Can occur. Can react with itself at temperatures above 130°C (266°F) Polymerization can be catalyzed by: Strong bases. Water.

Thermal Decomposition

Decomposition products depend upon temperature, air supply and the presence of other materials. Gases are released during decomposition.

11. Toxicological Information

Acute Toxicity

Ingestion

Low toxicity if swallowed. Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury. Aspiration into the lungs may occur during ingestion or vomiting, causing lung damage or even death due to chemical pneumonia. Observations in animals include: Gastrointestinal irritation.
Single dose oral LD50 has not been determined.

Eye Contact

May cause eye irritation. May cause slight temporary corneal injury.

Skin Contact

Prolonged contact may cause moderate skin irritation with local redness. Material may stick to skin causing irritation upon removal. May stain skin.

Skin Absorption

Prolonged skin contact is unlikely to result in absorption of harmful amounts.
The LD50 has not been determined.

Inhalation

In confined or poorly ventilated areas, vapor can easily accumulate and can cause unconsciousness and death due to displacement of oxygen. Excessive exposure may cause irritation to upper respiratory tract (nose and throat) and lungs. May cause pulmonary edema (fluid in the lungs.) Effects may be delayed. May cause central nervous system depression. Symptoms of excessive exposure may be anesthetic or narcotic effects; dizziness and drowsiness may be observed. Excessive exposure may increase sensitivity to epinephrine and increase myocardial irritability (irregular heartbeats). Decreased lung function has been associated with overexposure to isocyanates.

Sensitization

Skin

Skin contact may cause an allergic skin reaction. Animal studies have shown that skin contact with isocyanates may play a role in respiratory sensitization.

Respiratory

May cause allergic respiratory response. MDI concentrations below the exposure guidelines may cause allergic respiratory reactions in individuals already sensitized. Asthma-like symptoms may include coughing, difficult breathing and a feeling of tightness in the chest. Occasionally, breathing difficulties may be life threatening.

Repeated Dose Toxicity

Contains a component which is reported to be a weak organophosphate-type cholinesterase inhibitor. Excessive exposure may produce organophosphate type cholinesterase inhibition. Signs and symptoms of excessive exposure may be headache, dizziness, incoordination, muscle twitching, tremors, nausea, abdominal cramps, diarrhea, sweating, pinpoint pupils, blurred vision, salivation, tearing, tightness in chest, excessive urination, convulsions. Tissue injury in the upper respiratory tract and lungs has been observed in laboratory animals after repeated excessive exposures to MDI/polymeric MDI aerosols. For the component(s) tested: In animals, effects have been reported on the following organs: Kidney. Bone marrow. Liver.

Chronic Toxicity and Carcinogenicity

Lung tumors have been observed in laboratory animals exposed to aerosol droplets of MDI/Polymeric MDI (6 mg/m3) for their lifetime. Tumors occurred concurrently with respiratory irritation and lung injury. Current exposure guidelines are expected to protect against these effects reported for MDI.

Developmental Toxicity

In laboratory animals, MDI/polymeric MDI did not cause birth defects; other fetal effects occurred only at high doses which were toxic to the mother.

Genetic Toxicology

For the minor component(s): In vitro genetic toxicity studies were negative. Genetic toxicity data on MDI are inconclusive. MDI was weakly positive in some in vitro studies; other in vitro studies were negative. Animal mutagenicity studies were predominantly negative.

12. Ecological Information

CHEMICAL FATE

Data for Component: **Prepolymer of MDI and polyol**

Movement & Partitioning

In the aquatic and terrestrial environment, movement is expected to be limited by its reaction with water forming predominantly insoluble polyureas.

Persistence and Degradability

In the aquatic and terrestrial environment, material reacts with water forming predominantly insoluble polyureas which appear to be stable. In the atmospheric environment, material is expected to have a short tropospheric half-life, based on calculations and by analogy with related diisocyanates.

Data for Component: **4,4'-Methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate (MDI)**

Movement & Partitioning

In the aquatic and terrestrial environment, movement is expected to be limited by its reaction with water forming predominantly insoluble polyureas.

Persistence and Degradability

In the aquatic and terrestrial environment, material reacts with water forming predominantly insoluble polyureas which appear to be stable. In the atmospheric environment, material is expected to have a short tropospheric half-life, based on calculations and by analogy with related diisocyanates.

Data for Component: **Methylenediphenyl diisocyanate, homopolymer**

Movement & Partitioning

In the aquatic and terrestrial environment, movement is expected to be limited by its reaction with water forming predominantly insoluble polyureas.

Persistence and Degradability

In the aquatic and terrestrial environment, material reacts with water forming predominantly insoluble polyureas which appear to be stable. In the atmospheric environment, material is expected to have a short tropospheric half-life, based on calculations and by analogy with related diisocyanates.

Data for Component: **Tris(1-chloro-2-propyl) phosphate**

Movement & Partitioning

Bioconcentration potential is low (BCF < 100 or Log Pow < 3). Potential for mobility in soil is low (Koc between 500 and 2000).
Henry's Law Constant (H): < 1.35E-5 atm*m3/mole; 25 °C Estimated
Partition coefficient, n-octanol/water (log Pow): 2.59 Measured
Partition coefficient, soil organic carbon/water (Koc): 1,300 Estimated
Bioconcentration Factor (BCF): 0.8 - 4.6; common carp (Cyprinus carpio); Measured

Persistence and Degradability

Material is expected to biodegrade only very slowly (in the environment). Fails to pass OECD/EEC tests for ready biodegradability.
OECD Biodegradation Tests:

Biodegradation	Exposure Time	Method
14 %	28 d	OECD 301E Test

Data for Component: **Isobutane**

Movement & Partitioning

Bioconcentration potential is low (BCF less than 100 or log Pow less than 3). Potential for mobility in soil is very high (Koc between 0 and 50).
Henry's Law Constant (H): 1.19E+00 atm*m3/mole; 25 °C Measured
Partition coefficient, n-octanol/water (log Pow): 2.76 Measured

Partition coefficient, soil organic carbon/water (Koc): 35 Estimated
Distribution in Environment: Mackay Level 1 Fugacity Model:

Air	Water.	Biota	Soil	Sediment
100 %				

Persistence and Degradability
Biodegradation may occur under aerobic conditions (in the presence of oxygen).

Data for Component: **Propane**

Movement & Partitioning
Bioconcentration potential is low (BCF less than 100 or log Pow less than 3). Potential for mobility in soil is very high (Koc between 0 and 50).
Henry's Law Constant (H): 7.07e-01 atm*m3/mole; 25 °C Estimated
Partition coefficient, n-octanol/water (log Pow): 2.36 Measured
Partition coefficient, soil organic carbon/water (Koc): 24 - 460 Estimated
Distribution in Environment: Mackay Level 1 Fugacity Model:

Air	Water.	Biota	Soil	Sediment
100 %				

Persistence and Degradability
Degradation is expected in the atmospheric environment within days to weeks.

Data for Component: **Dimethyl ether**

Movement & Partitioning
Bioconcentration potential is low (BCF less than 100 or log Pow less than 3). Potential for mobility in soil is very high (Koc between 0 and 50).
Henry's Law Constant (H): 1.31e-03 atm*m3/mole; 25 °C Measured
Partition coefficient, n-octanol/water (log Pow): 0.10 Measured
Partition coefficient, soil organic carbon/water (Koc): 14 Estimated

Persistence and Degradability
Material is not readily biodegradable according to OECD/EC guidelines.
OECD Biodegradation Tests:

Biodegradation	Exposure Time	Method
5 %		OECD 301A Test

ECOTOXICITY
Data for Component: **Prepolymer of MDI and polyol**

The measured ecotoxicity is that of the hydrolyzed product, generally under conditions maximizing production of soluble species. Material is not classified as dangerous to aquatic organisms (LC50/EC50/IC50 greater than 100 mg/L in most sensitive species).

Toxicity to Soil Dwelling Organisms
LC50, Earthworm Eisenia foetida, adult, 14 d: > 1,000 mg/kg

Data for Component: **4,4'-Methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate (MDI)**

The measured ecotoxicity is that of the hydrolyzed product, generally under conditions maximizing production of soluble species. Material is not classified as dangerous to aquatic organisms (LC50/EC50/IC50 greater than 100 mg/L in most sensitive species).

Toxicity to Soil Dwelling Organisms
LC50, Earthworm Eisenia foetida, adult, 14 d: > 1,000 mg/kg

Data for Component: **Methylenediphenyl diisocyanate, homopolymer**

The measured ecotoxicity is that of the hydrolyzed product, generally under conditions maximizing production of soluble species. Material is not classified as dangerous to aquatic organisms (LC50/EC50/IC50 greater than 100 mg/L in most sensitive species).

Toxicity to Soil Dwelling Organisms
LC50, Earthworm Eisenia foetida, adult, 14 d: > 1,000 mg/kg

Data for Component: **Tris(1-chloro-2-propyl) phosphate**

Material is harmful to aquatic organisms (LC50/EC50/IC50 between 10 and 100 mg/L in most sensitive species).

Fish Acute & Prolonged Toxicity
LC50, bluegill (Lepomis macrochirus), 96 h: 84 mg/l
Aquatic Invertebrate Acute Toxicity
EC50, water flea Daphnia magna, 48 h, immobilization: 63 mg/l
Aquatic Plant Toxicity
EC50, green alga Selenastrum capricornutum, biomass growth inhibition, 96 h: 47 mg/l
EC50, alga Scenedesmus sp., biomass growth inhibition, 72 h: 45 mg/l
Toxicity to Micro-organisms
EC50, OECD 209 Test; activated sludge, respiration inhibition, 3 h: 784 mg/l
Aquatic Invertebrates Chronic Toxicity Value:

ChV Value mg/l	Species	Test Type	Endpoint	Exposure Time
> 32 mg/l	water flea Daphnia magna	static renewal	number of offspring	21 d

Data for Component: **Dimethyl ether**

Material is not classified as dangerous to aquatic organisms (LC50/EC50/IC50 greater than 100 mg/L in most sensitive species).

Fish Acute & Prolonged Toxicity
LC50, guppy (Poecilia reticulata), 96 h: > 4,000 mg/l
Aquatic Invertebrate Acute Toxicity
LC50, water flea Daphnia magna, 48 h: > 4,000 mg/l

13. Disposal Considerations

Contents under pressure. Do not puncture or incinerate container. Relieve all pressure prior to disposal. Do not dump into any sewers, on the ground, or into any body of water. The generation of waste should be avoided or minimized wherever possible. Any disposal practice must be in compliance with all local and national laws and regulations. Refer to manufacturer/supplier for information on recovery/recycling.

14. Transport Information

ROAD & RAIL
Proper Shipping Name: AEROSOLS, FLAMMABLE
Hazard Class: 2.1 **ID Number:** UN1950

Classification: 5F
Tremcard Number: 20G5A
OCEAN
Proper Shipping Name: AEROSOLS, FLAMMABLE
Hazard Class: 2.1 **ID Number:** UN1950
EMS Number: F-D,S-U
Marine pollutant.: No

AIR
Proper Shipping Name: AEROSOLS, FLAMMABLE
Hazard Class: 2.1 **ID Number:** UN1950**Cargo Packing Instruction:** 203
Passenger Packing Instruction: 203

INLAND WATERWAYS
Proper Shipping Name: AEROSOLS, FLAMMABLE

Hazard Class: 2.1 **ID Number:** UN1950
Classification: 5F
Tremcard Number: 20G5A

15. Regulatory Information

European Inventory of Existing Commercial Chemical Substances (EINECS)
The components of this product are on the EINECS inventory or are exempt from inventory requirements.

EC Classification and User Label Information

Hazard Symbol :
Xn - Harmful.
F+ - Extremely flammable.

Risk Phrases :
R12 - Extremely flammable.
R36/37/38 - Irritating to eyes, respiratory system and skin.
R42/43 - May cause sensitization by inhalation and skin contact.

Safety Phrases :
S2 - Keep out of the reach of children.
S16 - Keep away from sources of ignition - no smoking.
S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection.
S24/25 - Avoid contact with skin and eyes.
S51 - Use only in well-ventilated areas.
S23 - Do not breathe vapour/gas/fumes/spray.
S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
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 and soap.
Contains: 4,4'-Methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate (MDI)

Contains isocyanates. See information supplied by the manufacturer.
Container is under pressure.
Keep out of reach of children.
Protect from sun and temperatures above 50°C.
No smoking, open flames or sources of ignition in handling and storage area.
Do not spray against an open flame or glowing hot objects.
To avoid risk for man and the environment, follow the use instructions.
Do not open with force or incinerate even after use.

16. Other Information

Other Information

Protective gloves should be worn when handling freshly-made polyurethane products to avoid skin contact with trace amounts of residual materials, some of which may be hazardous in contact with skin.

Risk-phrases in Section 2

R12	Extremely flammable.
R20	Harmful by inhalation.
R22	Harmful if swallowed.
R36/37/38	Irritating to eyes, respiratory system and skin.
R42/43	May cause sensitization by inhalation and skin contact.

Revision

Identification Number: 1004205 / 3005 / Issue Date 2006/10/07 / Version: 5.3
Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

Dow Chemical Company Ltd urges each customer or recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific (M)SDSs, we are not and cannot be responsible for (M)SDSs obtained from any source other than ourselves. If you have obtained an (M)SDS from another source or if you are not sure that the (M)SDS you have is current, please contact us for the most current version.