

SAFETY DATA SHEET

2/8/02

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

DOW CHEMICAL COMPANY LTD

2 HEATHROW BOULEVARD
284 BATH ROAD
WEST DRAYTON
MIDDLESEX
UB7 0DQ

24 HOUR EMERGENCY RESPONSE NUMBER : +44-1553-761-251

Product Name: **GREAT STUFF PRO GAPS & CRACKS**

LV70: 07948

Issue Date: April 02

Ref: SQ100

Revised: July 02

2. COMPOSITION/INFORMATION ON INGREDIENTS**Dangerous components (see section 16 for complete R-phrases):**

| | | | CAS | EC No |
|--|--------|--------------------------------|-------------|-----------|
| Dimethyl ether | 5-20 % | F+; R12 | 000115-10-6 | 204-065-8 |
| Diphenylmethane-4,4'- diisocyanate (4,4'-MDI) | 5-24 % | Xn; R20, Xi; 36/37/38-42/43 | 000101-68-8 | 202-966-0 |
| Isobutane | 5-20 % | F+; R12 | 000075-28-5 | 200-857-2 |

3. HAZARDS IDENTIFICATION

Extremely flammable. Irritating to eyes, respiratory system and skin. May cause sensitization by inhalation and skin contact. In hypersensitive people, very low concentrations may lead to bronchoconstriction (asthmatic signs and symptoms).

SAFETY DATA SHEET

2/8/02

Great Stuff Pro Gaps & Cracks

4. FIRST-AID MEASURES

Never give fluids or induce vomiting if patient is unconscious or is having convulsions.

Inhalation

Move person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, oxygen should be administered by qualified personnel. Call a physician or transport to a medical facility.

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.

Eye Contact

Flush eyes with plenty of water for at least 15 minutes. Consult medical personnel.

Ingestion

No emergency medical treatment necessary.

Note to Physician

Treat symptomatically. The components of this product are respiratory irritants and potential respiratory sensitizers. Treatment is essentially symptomatic for primary irritation or bronchospasms. Exposed persons should be kept under medical observation for at least 48 hours because delayed effects may occur.

5. FIRE-FIGHTING MEASURES

Extinguishing Media

Carbon dioxide. Dry chemical fire extinguishers. Foam. Water fog or fine spray.

Extinguishing Media to Avoid

DO NOT USE WATER JET.

Hazardous Combustion Products

Combustion will lead to the build-up of other toxic pyrolysis products together with carbon and nitrogen oxides. Combustion products may include and are not limited to: Nitrogen oxides. Carbon oxides. Hydrogen chloride. Hydrogen cyanide. Other hazardous gaseous products.

Protection of Firefighters

Wear positive-pressure self-contained breathing apparatus 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, wear full chemical resistant clothing with positive-pressure self-contained breathing apparatus. This may not provide sufficient fire protection; consider fighting fire from a remote location.

SAFETY DATA SHEET

2/8/02

Great Stuff Pro Gaps & Cracks

Specific Fire or Explosion Hazards

Keep possible ignition sources away from vapours. Violent eruption of containers may occur under fire conditions. During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/ or irritating.

Specific Methods of Firefighting

Down-wind personnel must be evacuated. Use water spray to disperse vapours, to cool surfaces or to protect personnel attempting to minimise damage and spills. Do not discharge extinguishing waters into streams, rivers and lakes.

6. ACCIDENTAL RELEASE MEASURES**Personal Precautions**

Evacuate non-emergency personnel from area. Only trained and properly protected personnel should be involved in cleanup operations. Respiratory protection should include positive pressure, self-contained breathing apparatus. Wear adequate personal protective equipment, see Section 8, EXPOSURE CONTROLS/PERSONAL PROTECTION. Eliminate all ignition sources.

Environmental Precautions

Prevent from entering sewers or drains.

Methods of Cleaning Up

Recover if possible, or dispose of according to applicable regulations, see Section 13, DISPOSAL CONSIDERATIONS.

7. HANDLING AND STORAGE

Practice care and caution to avoid skin and eye contact.

Handling

Atmospheric levels should be maintained below the exposure guideline. Eliminate all ignition sources. Products based on diisocyanates like MDI and TDI should always be used in a well ventilated area with appropriate local extraction in such a way that the Occupational Exposure Limits (OEL) for these materials are not exceeded. It is recommended that the diisocyanate concentration in the air be checked at regular intervals. Do not eat, drink or smoke in working area.

Storage

Keep away from oxidising material(s). Store in cool, dry well ventilated area away from sources of ignition and heat. Keep in a cool place, heat causes an increase in pressure and risk of bursting.

SAFETY DATA SHEET

2/8/02

Great Stuff Pro Gaps & Cracks

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

None established for the preparation.

Dimethyl ether: The EC indicative limit values for occupational exposure are 1920 mg/m³ (1000 ppm) TWA-8hours.

The UK Health and Safety Executive have established an Occupational Exposure Standard(OES) of 400ppm 8-hour TWA, 500ppm 15-min STEL.

MDI: OEL's (Occupational Exposure Limits) have been set for MDI in most countries, the common values being 5-20 ppb.

The UK Health and Safety Executive has established a Maximum Exposure Limit, expressed as isocyanate, of 0.02 mg/m³ 8-hour TWA, 0.07 mg/m³ 15-min STEL. Sen National guidelines on emission limits for volatile substances must be observed for the discharge of exhaust air containing vapours of this product.

Isobutane: Dow Industrial Hygiene Guideline is 600 ppm TWA-8 hours.

Engineering Controls

Eye wash fountain and safety shower should be located in the immediate vicinity of the work area. Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines. Use only with adequate ventilation.

Personal Protective Equipment

Respiratory Protection

Atmospheric levels should be maintained below the exposure guideline. When respiratory protection is required for certain operations, use an approved air-purifying respirator. For operations such as spraying and other conditions, such as emergencies where the exposure guideline may be greatly exceeded, use an approved positive-pressure self-contained breathing apparatus.

Skin Protection

Safety shower should be located in immediate work area. Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, gloves, boots, apron, or full body-suit will depend on operation.

After work and before eating, drinking or smoking wash and clean yourself carefully with soap and water. Contaminated clothing should be washed and/or dry cleaned before re-use. Items which cannot be decontaminated, such as shoes, belts and watchbands, should be removed and disposed of properly.

Eye/Face Protection

Eye wash fountain should be located in immediate work area. Use chemical goggles.

SAFETY DATA SHEET

2/8/02

Great Stuff Pro Gaps & Cracks

9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|----------------------|-----------------------------------|
| Appearance | : aerosol |
| Colour | : yellow |
| Odour | : practically odourless |
| Boiling point/range | : -12 deg.C (isobutane) |
| Flash point | : not applicable |
| pH | : not applicable |
| Water solubility | : insoluble |
| LogP (octanol/water) | : not determined |
| Vapour pressure | : 3000 hPa (20 deg.C) (isobutane) |
| Viscosity | : not applicable |

10. STABILITY AND REACTIVITY

Chemical Stability

Stable under recommended storage conditions, see Section 7, Storage.

Conditions to Avoid

Excessive heat. Avoid temperatures above 50 deg.C.

Materials to Avoid

Oxidising agents.

Hazardous Reactions

Because of high vapour pressure, containers are liable to burst if temperature rises.

Hazardous Decomposition Products

None known.

11. TOXICOLOGICAL INFORMATION

None established for the preparation.

Assessments based on studies of the individual components of the material.

Acute toxicity

Short-term exposure

Ingestion

Data for: MDI: Low toxicity if swallowed. The oral LD50 for rats is >2000 mg/kg. Ingestion may cause gastrointestinal irritation.

Eye Contact

Data for: MDI: May cause moderate eye irritation. May cause very slight transient (temporary) corneal injury.

SAFETY DATA SHEET

2/8/02

Great Stuff Pro Gaps & Cracks

Skin Contact

Data for: MDI: According to human experience, the material may cause moderate to severe irritation. May stain skin. The LD50 for skin absorption in rabbits is >2000 mg/kg.

Inhalation

Data for: Polymeric MDI: The 4 hour LC50 for rats is 490 mg/m³ (aerosol).

Vapour and aerosol can cause severe irritation of the respiratory tract with burning sensation to the nose and throat. High exposure can result in inflammation of lung tissue and fluid in the lungs. In hyper-sensitive people very low concentrations may lead to bronchoconstriction (asthmatic signs and symptoms). Effects may be delayed.

Repeated and long-term exposure**Respiratory sensitisation**

May cause sensitization by inhalation. Chronic exposure by inhalation may result in a permanent decrease of lung function.

Skin Contact

May cause sensitization by skin contact. Animal studies have shown that skin contact with diisocyanates may play a role in respiratory sensitisation.

Carcinogenicity

Data for: MDI: Rats have been exposed for two years to an experimentally produced respirable aerosol of polymeric MDI which resulted in chronic pulmonary irritation at high concentrations. The prolonged irritation led to the formation of tumours in the lungs of a small proportion of the rats exposed to 6 mg/cubic m. There were no tumours at 1 mg/cubic m and no effects at 0.2 mg/cubic m. In the absence of prolonged high exposure leading to chronic irritation and lung damage it is highly unlikely that tumours could occur, although these results reinforce the need to observe the recommended safety precautions and occupational exposure limit when working with MDI based products. Industrial experience in humans has not shown any links between MDI based products exposure and cancer development.

12. ECOLOGICAL INFORMATION**Mobility and Bioaccumulation Potential**

No data available.

Degradation

No data available.

Aquatic Toxicity

No data available.

SAFETY DATA SHEET

2/8/02

Great Stuff Pro Gaps & Cracks

13. DISPOSAL CONSIDERATIONS

Disposal

Any disposal practice must be in compliance with all local and national laws and regulations. Do not dump into any sewers, on the ground, or into any body of water.

14. TRANSPORT INFORMATION

Road, Rail & Barge

Proper shipping name: 1950 Aerosols
 Truck - ADR Loaded : 2-5F Empty : 2-8 Label : 2
 Rail - RID Loaded : 2-5F Empty : 2-8 Label : 2
 Filling % Packed :
 Filling % Bulk :
 Kemler Code : 20 UN Number : 1950
 Tremcard Nr. CEFIC : 20G53
 Tremcard Nr. Other :
 Barge - ADNR Loaded : 2-5F Empty : 2-8 Label: 2
 Ship Type : - CATG. : -

Sea

Proper shipping name: 1950 Aerosols
 Sea - IMO/IMDG Class: 2.1 UN Nr : 1950 Label: 2.1
 Packing Group : - EMS : 2.13 MFAG : 4.2
 Container Type : - Marine Pollutant : N (Y/N)
 Test Pressure (bar) : Filling % Packed :
 Filling % Bulk :
 Filling Kg/L (Gas) :

Air

Proper shipping name: 1950 Aerosols, flammable
 Air-ICAO/IATA Class : 2.1 UN Nr : 1950 Label: FG
 Sub Class : -
 Packing Group : - Pack Instr. Passenger : 203
 Pack Instr. Cargo : 203

Remarks : Sample shipment not allowed by mail.

15. REGULATORY INFORMATION

EC Classification and User Label Information

Classification according to the UK Chemicals (Hazard Information and Packaging) Regulations, CHIP.

Hazard Symbol : F+ - Extremely Flammable
 Xn - Harmful

SAFETY DATA SHEET

2/8/02

Great Stuff Pro Gaps & Cracks

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

Safety Phrases : Do not breathe vapour. (S23)
Wear suitable protective clothing and gloves. (S36/37)
In case of accident or if you feel unwell, seek
medical advice immediately (Show the label where
possible). (S45)
Use only in well-ventilated areas. (S51)
Dispose of this material and its container to
hazardous or special waste collection point. (S56)

Chemical name: **Contains:** Diphenylmethane-4,4'-diisocyanate
(4,4'-MDI)

Remarks: Container is under pressure. Protect from sun and
temperatures above 50 deg.C. Do not open with force
or incinerate even after use. Do not spray against an
open flame or glowing hot objects. Keep away from
ignition sources. No smoking. Keep out of reach of
children. Observe manufacturer's instructions.

16. OTHER INFORMATION

No other information.

The information herein is given in good faith and to the best of our
knowledge but no warranty, express or implied, is made.