



DIVERSE URETHANES

PRODUCT DATA SHEET

DFS 400 PUR

Description:

A two component, solvent free, polyurethane designed to produce a hard-wearing smooth coating. The cured product is able to withstand exposure to various chemicals and mild acids.

Uses:

DFS 400 may be applied to concrete substrates, floors, rock faces and wood surfaces to produce a monolithic coating at a hardness of 85 to 96 Shore A. Part A and B are mixed together till homogeneous, then poured onto the **primed** surface and spread to the desired thickness with a notched trowel. The product can also be coated by means of a paint brush using the "laying-on" technique. It will stick to vertical surfaces using this technique, and the thickness can be controlled by applying more coats. This product is designed for professional use, by workmen skilled in the mixing and application of two component flooring systems. The surface can be primed with either polyurethane or epoxy primer that seals all blow holes.

The product can also be applied by means of 1 component airless spray equipment, but care should be taken that the material does not gel on the pots or the hoses. The long open time makes it suitable to be sprayed.

Safety:

Part A does not present any significant health hazard under normal conditions of industrial exposure.

Part B consists of methylene diphenyl diisocyanate (MDI) and therefore suitable conditions of industrial hygiene should be observed. Contact with the skin and eyes should be avoided by wearing gloves, safety goggles and protective clothing. In case of eye contact wash well with water and obtain medical advice.

Properties:

Mixing Ratio (Weight)	100 Part A : 26 Part B (MR200)
Colour Mixed	WHITE
Theoretical coverage	1 kg/m ² @ 1mm thick
Pot Life	+ - 60 minutes.
Shelf Life	6 months in sealed containers
Application Temp.	+ - 25 C
Service Temp.	-5 C - 60 C.

Full Cure 7 Days.

Physical properties

Hardness - 85-96 Shore A
Tensile Strength - 5.6 Mpa (28 days)
Elongation at Break - 52% (28 days)

This information supplied is believed to be reliable. However as we have no control over the application of the products we cannot guarantee results to be obtained.

MDI 10 - SAFETY DATA SHEET

Chemical Family : Isocyanate
Product Type : Modified Polymeric MDI
Major Components : 4,4 Diisocyanate diphenyl methane
Appearance : Milky to clear liquid
Boiling Point : >200°C
Vapour Pressure : 2.5 x 10⁻⁵ mm Hg at 25°C
Specific Gravity : 1,24
Flash Point : >205°C
Flammability Limits : - Auto-
ignition : >200°C

HEALTH HAZARD INFORMATION

Eyes : Irritation, causes watering and discomfort
Skin : Slight to mild irritation of the skin and in rare cases dermatitis.
Temporary brown skin discolouration may also occur. It may cause sensitisation.
Ingestion : Irritation and pain.

FIRST AID

Eyes : Flush immediately with flowing water for at least 15 minutes and consult a physician.
Skin : Wash with flowing water.
Ingestion : Give large amounts of water and consult a physician. If vomiting occurs, follow with more water.

REACTIVITY DATA

Stability : Stable
Conditions to avoid : Water ingress
Hazardous Decomposition Products : Carbon Dioxide

SPILLAGES

Treat spillage with wet earth or sand. Leave material to react for 15 minutes. Shovel into bags.

WASTE DISPOSAL

Land tipping after consultation with local authority

PROTECTIVE EQUIPMENT

Eyes : Goggles
Gloves : PVC / Rubber Overalls
: Cotton.

SAFETY DATA SHEET

DFS 400

IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING:

Product Name : DFS 400
Address/Tel.No. : DIVERSE URETHANES
No: 2A High Street
Modderfontein
(011) 608-2584

COMPOSITION/INFORMATION ON INGREDIENTS:

PRODUCT DESCRIPTION		POLYOL BLEND		
HAZARDOUS INGREDIENT(S)	CAS NO.	%(w/w)	SYMBOL	R PHRASES
POLYOL	-	>50	Xi	R43

HAZARDS IDENTIFICATION:

May cause sensitisation by skin contact.

FIRST AID MEASURES:

- Inhalation : Remove patient from exposure
- Skin contact : Wash immediately with water followed by soap and water. If symptoms (irritation or blistering) persist, obtain medical attention. Contaminated clothing should be laundered before re-issue.
- Eye Contact : Irrigate with eyewash solution or clean water, holding the eyelids apart, for at least 10 minutes. Obtain medical attention.
- Ingestion : Provided the patient is conscious, wash out mouth with water and give 200-300 ml (half a pint) of water to drink. Do not induce vomiting.
- Further Medical Treatment : Symptomatic treatment and supportive therapy as indicated.

FIRE-FIGHTING MEASURES:

Not classed as flammable.
If involved in a fire, it may emit noxious and toxic fumes.

- Extinguishing Media : Normal
- Fire Fighting Protective Equipment : Full protective equipment including suitable respiratory protection.

ACCIDENTAL RELEASE MEASURES:

Ensure full personal protection during removal of spillages.
Absorb spillages onto sand, earth or any suitable absorbent material.
Transfer to a container for disposal.
Wash the spillage area clean with water and detergent.

HANDLING AND STORAGE:

- Handling : Avoid contact with skin.
- Storage : This material is hygroscopic. Avoid ingress of moisture by keeping containers properly sealed when not in use.

EXPOSURE CONTROLS/PERSONAL PROTECTION:

Wear suitable gloves and eye/face protection

Occupational Exposure Limits

HAZARDOUS INGREDIENT(S)	LTEL ppm	8hr TWA mg/m³	STEL ppm	Time mg/m³ mins
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No Occupational Exposure Limit Assigned.

PHYSICAL AND CHEMICAL PROPERTIES

Form	:	Liquid
Flash Point	:	>100

STABILITY AND REACTIVITY

Hazardous Reactions	:	None
Hazardous Decomposition Products	:	None at ambient temperature

TOXICOLOGICAL INFORMATION:

This health hazard assessment is based on a consideration of the composition of this product.

Inhalation	:	Unlikely to be hazardous by inhalation because of the low vapour pressure of the material at ambient temperature.
Skin Contact	:	Slight/mild irritant. May cause sensitisation by skin contact.
Eye Contact	:	Slight/mild irritant.
Ingestion	:	Low oral toxicity.

ECOLOGICAL INFORMATION:

No information available.

DISPOSAL CONSIDERATIONS:

The generation of waste should be avoided or minimised wherever possible. Disposal should be in accordance with local, state or national legislation. Bury on an authorised landfill site or incinerate under approved controlled conditions, using incinerators suitable for the disposal of noxious chemical waste.

TRANSPORT INFORMATION:

UN no. : -
UN Pack Group : - **AIR**
ICAO/IATA Class
Primary : -

SEA

IMDG Class
Primary : -

ROAD/RAIL

ADR/RID Class : -
ADR/RID Item No. : -
ADR SIN : -

REGULATORY INFORMATION:

EEC Classification : Irritant
Hazard Symbol : Xi
Risk Phrases : R43 : May cause sensitisation by skin contact.
Safety Phrases : S24 : Avoid contact with skin.

OTHER INFORMATION:

This data sheet was prepared in accordance with Directive 91/155/EEC.

Chemical Resistance Chart.

DFS 400 PUR	
<u>Chemical</u>	<u>Result</u>
HCL (hot) 32%	severe affect
Sulphuric Acid Conc	severe affect
diesel	little or no effect
Petrol (95 octane)	little or no effect
Calcium Chloride	little or no effect
Castor Oil	little or no effect
Copper Chloride	little or no effect
Copper cyanide	little or no effect
Copper sulphate	little or no effect
Phosphoric acid (20%)	little or no effect
Phosphoric acid (45%)	little or no effect
Potassium Chloride	little or no effect
Potassium cyanide	little or no effect
Sodium Hydroxide	little or no effect
Chlorine (HTH)	little or no effect
HCL (cold) 32%	discolouring to minor swelling
Battery acid	discolouring to minor swelling

Physical Results.

Physical Property	1 day (Mpa)	3 Days (Mpa)	7 Days (Mpa)	14 Days (Mpa)	28 Days (Mpa)
Tensile Strength (dog bone)	1.78	3.2	4.1	5.2	5.6
Elongation at Break	176%	129%	92%	70%	52%