



# Material SAFETY DATA SHEET

## Flexseal PP800 - Hardener

### 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name: **Flexseal PP800 - Hardener**

Description: Hardener component of an elastomeric high performance, cold applied fuel resistant pavement joint sealant

Manufacturer: **Ayla Lebanon**  
Port, Jamarek Street (Face Port Pharmacy), Rbeiz Bldg  
Beirut, Lebanon  
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### 2: COMPOSITION / INFORMATION ON INGREDIENTS

Composition:	Aromatic isocyanate, chlorinated paraffin.			
Hazardous Ingredient(s)	Symbol	Risk Phrases	CAS No.	%
Polymeric diphenylmethane Diisocyanate (pMDI)	Xn	R20, 36/37/38, 42	9016-87-9	10 - 25
Chlorinated paraffin	N	R51/53	63449-39-8	50 - 75
4,4'-Diphenylmethane Diisocyanate (MDI)	Xn	R20, 22, 36/37/38 R42	101-68-8	10 - 15
Diphenylmethane diisocyanate (MDI) mixed isomers			26447-40-5	< 5

Refer to Section 8 for Occupational Exposure Limits.

### 3: HAZARDS IDENTIFICATION

Hazard Information: Harmful by inhalation.  
Harmful if swallowed.  
Irritating to eyes, respiratory system and skin.  
May cause sensitization by inhalation.  
Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Classification: Xn, N, R20, 22, 36/37/38, 42, 51/53.



#### 4: FIRST AID MEASURES

Eyes:	Irrigate with copious quantities of clean water or eyewash solution, holding the eyelids apart, for at least 15 minutes. Obtain medical attention.
Skin:	Wash immediately with soap and water or suitable skin cleanser for at least 15 minutes until no evidence of chemicals remain, for severe exposure, immediately get under safety shower and begin rinsing. Remove contaminated clothes and shoes, wash them before reuse. Obtain medical advice if skin disorders develop.
Inhalation:	Remove from exposure; obtain medical attention if respiratory irritation develops or if breathing becomes difficult. Asthmatic symptoms may develop and may be delayed up to several hours. Extreme asthmatic reactions can be life threatening.
Ingestion:	Rinse mouth thoroughly. Drink plenty of water. Do not induce vomiting. Obtain medical attention. Beware of aspiration if vomiting occurs.

#### 5: FIRE FIGHTING MEASURES

Extinguishing Media:	Dry Chemicals, carbon dioxide, powder, foam, water spray for large fires.
Personal Protective Equipment:	Self-contained breathing apparatus, helmet, hood, boots and gloves. Avoid contact with product.
Special Exposure Hazards:	Closed container may rupture under extreme heat or when contents are contaminated with water (CO <sub>2</sub> formed). Use cold-water spray to cool fire-exposed containers to minimize the risk of rupture. Large fires can be extinguished with large volumes of water applied from a safe distance, since reaction between water and hot diisocyanate can be vigorous

#### 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions:	Immediately issue NO SMOKING and NO NAKED FLAMES warnings. Wear suitable protective clothing, gloves and eye/face protection.
Environmental Precautions:	Prevent entry into drains, sewers and water courses.
Decontamination Procedures:	Soak up with inert absorbent such as sand. Gather into labeled containers. Dispose off as applicable regulations.

#### 7: HANDLING AND STORAGE

Handling:	Maintain good standards of personal hygiene. Avoid skin and eye contact. Avoid breathing vapors, mist or dusts. Do not eat, drink or smoke whilst using this product. Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment.
Storage:	Keep container tightly closed in a cool dry area (between 18°C and 30°C) away from sources of heat and out of direct sunlight to avoid pressure build up. Store in conformity with local fire regulations. Store away from sources of ignition.



## 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

Eye Protection:	Wear splash resistant safety goggles. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.
Skin Protection:	Impervious gloves (e.g. PVC). Suitable protective clothing.
Respiratory Protection:	Breathing filters apparatus.
Hygiene Measures:	Change contaminated clothing and clean before re-use. Wear chemical resistant clothes
Engineering Controls:	Use only in well ventilated areas. Local exhaust ventilation is recommended.

Exposure Guidelines:	Value	Limit	Reference
4,4'-Diphenylmethane Diisocyanate (MDI)	0.005 ppm	TWA	ACGIH
4,4'-Diphenylmethane Diisocyanate (MDI)	0.02 ppm/0.2 mg/m <sup>3</sup>	CLV	OSHA

## 9: PHYSICAL AND CHEMICAL PROPERTIES

Form:	Solvent-free liquid
Colour:	Light brown
Odour:	Characteristic
pH (concentrate):	Not applicable
Boiling Point (°C):	Not applicable
Flash Point (closed cup) (°C):	Not applicable
Autoflammability (°C):	Not applicable
Explosive Properties (%):	Not applicable
Relative Density (@25°C):	1.26
Water Solubility:	Insoluble

## 10: STABILITY AND REACTIVITY

Stability:	Stable if used as directed.
Conditions to Avoid:	Temperature above 35°C.
Chemical Incompatibility:	Water, amines, strong bases, alcohols, copper, alloys.
Hazardous Decomposition Products:	Thermal decomposition yield hydrogen cyanide, carbon dioxide, carbon monoxide, oxides of nitrogen, dense black smoke, isocyanic acid, other undetermined compounds.



## 11: TOXICOLOGICAL INFORMATION

The following toxicological assessment is based on knowledge of the toxicity of the product's components.

Polymeric MDI:	Acute oral toxicity	LD50 > 2000 mg/kg (rat)
	Acute inhalation toxicity	LC50 = 490 mg/m <sup>3</sup> , vapor, 4 hr (rat)
4,4'-Diphenylmethane diisocyanate (MDI)	Acute oral toxicity	LD50 = 369 mg/m <sup>3</sup> , 4 hr (rat)
	Acute inhalation toxicity	LC50 > 2240 mg/m <sup>3</sup> , aerosil, 1 hr (rat)

### Health Effects

On Eyes:	Irritant.
On Skin:	Irritant.
By Inhalation:	Irritant.
Chronic:	Repeated and prolonged use cause irritation in the lung and nasal cavity.

## 12: ECOLOGICAL INFORMATION

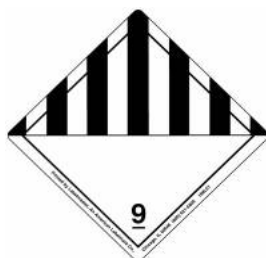
Environmental Assessment:	When used and disposed as indented, no adverse environmental effects are forseen.
Mobility:	Insoluble in water.
Degradability:	Not readily biodegradable.
Bioaccumulation:	Not expected to be bioaccumulative.
Acute Fish Toxicity:	Ecotoxic to fish/daphnia/algae.

## 13: DISPOSAL CONSIDERATION

This material and/or its container must be disposed of as hazardous waste. Do not discharge into drains or the environment, dispose to an authorized waste collection point.

Unused Product:	Disposal should be in accordance with local, state or national legislation. Classified as special waste, may react with hardener component.
Used/ Contaminated Product:	As for unused product.
Packaging:	Must be disposed off through an authorized waste contractor, do not heat or cut container with electric or gas torch because highly toxic vapors and gases are formed. Do not reuse without thorough commercial cleaning and reconditioning, remove all residue of product before disposal.

## 14: TRANSPORT INFORMATION



UN Number: 3082

Transport Name: Environmentally hazardous substance, liquid, n.o.s. (chlorinated paraffins C<sub>10-13</sub> & diphenylmethane di-isocyanate (MDI).

Transport Type:		Class:	Pack Group:	Marine Pollutant
At Sea	IMDG	9	III	Yes
Air Transport	ICAO/IATA	9	III	
At land	RID/ADR/DOT	9	III	

## 15: REGULATORY INFORMATION

### Hazard Label Data:

Xn

N



**Harmful**



**Dangerous for  
the environment**

### Risk Phrases:

R20	Harmful by inhalation.
R22	Harmful if swallowed.
R36/37/38	Irritating to eyes, respiratory system and skin.
R42	May cause sensitization by inhalation.
R51/53	Toxic to aquatic organisms, may cause long-term adverse in the aquatic environment.

### Safety Phrases:

S2	Keep out of the reach of children.
S24/25	Avoid any inhalation, contact with skin and eyes. Wear suitable protective clothing and gloves.
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 soap and water.
S36/37	Wear suitable protective clothing and gloves.
S38	In case of insufficient ventilation wear suitable respiratory equipment.
S45	In case of accident or if you feel unwell seek medical advice immediately (show the label where possible).
S60	This material and its container must be disposed of as hazardous waste.
S61	Avoid release to the environment. Refer to special instructions/safety data sheet.

## 16: OTHER INFORMATION

Issue Date: 04/04/2011

Revised Date:

Disclaimer: The information contained herein is derived from the best available sources and is believed to be accurate. However, no guarantee is expressed or implied regarding the accuracy of the data given in the use of this product.