



# Material Safety Data Sheet

Dow Chemical Canada, Inc

Product Name: BETAPRIME(TM) 5500SA

Issue Date: 2007.10.11  
Print Date: 12 Oct 2007

Dow Chemical Canada, Inc 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. Product and Company Identification

Product Name  
BETAPRIME(TM) 5500SA

### COMPANY IDENTIFICATION

Dow Chemical Canada, Inc  
A Subsidiary of The Dow Chemical Company  
PO Box 3030  
1425 Vidal Street South  
Sarnia, ON N7T 8C6  
Canada

For MSDS updates and Product Information: 800-331-6451

Prepared By: Prepared for use in Canada by EH&S, Product Regulatory  
Management Department.  
450-652-1029  
Revision 2007.10.11  
Print Date: 10/12/2007

Customer Information Number: 800-331-6451

### EMERGENCY TELEPHONE NUMBER

24-Hour Emergency Contact: 519-339-3711  
Local Emergency Contact: 519-339-3711

## 2. Hazards Identification

### Emergency Overview

Color: Black  
Physical State: Liquid  
Odor: Characteristic

\* Indicates a Trademark

**Hazards of product:**

**DANGER!** Extremely flammable liquid and vapor - Vapor may cause flash fire.  
 Causes eye irritation. A component in this mixture has been shown to be a skin sensitizer. May cause central nervous system effects. May cause anesthetic effects.  
 May cause respiratory tract irritation. May cause skin irritation.

**Potential Health Effects**

**Eye Contact:** May cause pain disproportionate to the level of irritation to eye tissues. May cause moderate eye irritation. May cause moderate corneal injury. Vapor may cause eye irritation experienced as mild discomfort and redness.

**Skin Contact:** Prolonged contact may cause moderate skin irritation with local redness. May cause drying and flaking of the skin.

**Skin Absorption:** Prolonged skin contact is unlikely to result in absorption of harmful amounts.

**Skin Sensitization:** A component in this mixture has been shown to be a skin sensitizer. Once an individual is sensitized, reexposure to very small amounts of vapor, mist or liquid isophorone diisocyanate may cause an allergic skin reaction. Animal studies have shown that skin contact with isocyanates may play a role in respiratory sensitization.

**Inhalation:** Vapor concentrations are attainable which could be hazardous on single exposure. May cause respiratory irritation and central nervous system depression. Symptoms may include headache, dizziness and drowsiness, progressing to incoordination and unconsciousness. May cause nausea and vomiting. Based on information for component(s): 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. Decreased lung function has been associated with overexposure to isocyanates. This material contains mineral and/or inorganic fillers. There is essentially no potential for inhalation exposure to these fillers incidental to industrial handling due to the physical state.

**Respiratory Sensitization:** A component in this mixture may cause an allergic respiratory response. Reexposure to extremely low isocyanate concentrations 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.

**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.

**Effects of Repeated Exposure:** Contains component(s) which have been reported to cause effects on the following organs in animals: Liver. Tissue injury in the upper respiratory tract and lungs has been observed in laboratory animals after repeated excessive exposures to MDI/polymeric MDI aerosols. Methyl ethyl ketone is probably not neurotoxic in itself but it potentiates the neurotoxicity of methyl-n-butyl ketone and n-hexane. Methyl ethyl ketone has caused liver effects in laboratory animals exposed by inhalation to high concentrations.

**Cancer Information:** Lung tumors have been observed in laboratory animals exposed to respirable aerosol droplets of MDI/Polymeric MDI (6 mg/m<sup>3</sup>) 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.

**Birth Defects/Developmental Effects:** Contains component(s) which did not cause birth defects in animals; other fetal effects occurred only at doses toxic to the mother.

### 3. Composition/information on ingredients

Component	CAS #	Amount W/W
Methyl ethyl ketone	78-93-3	> 50.0 - < 60.0 %
ALIPHATIC BASED SILYLATED POLYMER P99-533		> 15.0 - < 25.0 %
Carbon black	1333-86-4	> 5.0 - < 15.0 %
Methylenediphenyl diisocyanate , glycerol propoxylated , copolymer	68877-65-6	< 10.0 %

3-Methoxy-1-butyl acetate	4435-53-4	< 10.0 %
1-Isocyanato-3,3,5-trimethyl-5-isocyanatomethylcyclohexane	4098-71-9	< 2.0 %
4,4' -Methylenediphenyl diisocyanate	101-68-8	< 1.0 %

Amounts are presented as percentages by weight.

#### 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. This may also apply to other isocyanates. 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:** If swallowed, seek medical attention. Do not induce vomiting unless directed to do so by medical personnel.

**Notes to 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). Skin contact may aggravate preexisting dermatitis.

#### 5. Fire Fighting Measures

**Extinguishing Media:** Dry chemical fire extinguishers. Water fog or fine spray. Foam.

**Extinguishing Media to Avoid:** Do not use direct water stream.

**Fire Fighting Procedures:** Keep people away. Isolate fire and deny unnecessary entry.

**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).

**Unusual Fire and Explosion Hazards:** None known.

**Hazardous Combustion Products:** Hazardous combustion by-products may include but are not limited to carbon dioxide and carbon monoxide.

See Section 9 for related Physical Properties

#### 6. Accidental Release Measures

**Steps to be Taken if Material is Released or Spilled:** Contain spilled material if possible. Absorb with materials such as: Cat litter. Sand. Sawdust. Use non-sparking tools in cleanup operations. Ground and bond all containers and handling equipment.

**Ignition Sources Removal:** Eliminate all sources of ignition in vicinity of spill or released vapor to avoid fire or explosion. Ground and bond all containers and handling equipment. Ignition sources

can include and are not limited to pilot lights, flames, smoking, sparks, heaters, electrical equipment, and static discharges.

**Dust Control:** Not applicable.

**Personal Precautions:** Evacuate area. Eliminate all sources of ignition in vicinity of spill or released vapor to avoid fire or explosion. Ground and bond all containers and handling equipment. Only trained and properly protected personnel must be involved in clean-up operations.

**Inhalation, Skin, Mucous and Eye Contact Prevention:** Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

**Environmental Precautions:** Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

## 7. Handling and Storage

### Handling

**General Handling:** Use with adequate ventilation. Wash thoroughly after handling. Avoid contact with eyes, skin, and clothing. Do not breathe vapor. Keep container closed. Keep away from heat, sparks and flame. Do not cut or weld container. No smoking, open flames or sources of ignition in handling and storage area.

### Storage

Keep container tightly closed and in a well-ventilated place.

6 Months

Storage temperature: 5 - 35 °C

## 8. Exposure Controls / Personal Protection

### Exposure Limits

Component	List	Type	Value
Methyl ethyl ketone	OEL (QUE)	TWA	150 mg/m3 50 ppm
	OEL (QUE)	STEL	300 mg/m3 100 ppm
	CAD AB OEL	TWA	590 mg/m3 200 ppm
	CAD AB OEL	STEL	885 mg/m3 300 ppm
	CAD ON OEL	TWA	590 mg/m3 200 ppm
	CAD ON OEL	STEL	885 mg/m3 300 ppm
	ACGIH	TWA	200 ppm BEI
	ACGIH	STEL	300 ppm BEI
	CAD BC OEL	TWA	50 ppm
	CAD BC OEL	STEL	100 ppm
4,4' -Methylenediphenyl diisocyanate	OEL (QUE)	TWA	0.051 mg/m3 0.005 ppm SEN Exposure must be minimized.
	CAD MB OEL	Ceiling	0.02 ppm
	ACGIH	TWA	0.005 ppm
	CAD MB OEL	Ceiling	0.02 ppm
	CAD AB OEL	TWA	0.051 mg/m3 0.005 ppm
	CAD BC OEL	TWA	0.005 ppm SKIN
	CAD BC OEL	CEILING	0.01 ppm SKIN
	CAD ON OEL	TWA	0.005 ppm
CAD ON OEL	CEILING	0.02 ppm	

<b>1-Isocyanato-3,3,5-trimethyl-5-isocyanatomethylcyclohexane</b>	OEL (QUE)	TWA	0.045 mg/m <sup>3</sup> 0.005 ppm
	Exposure must be minimized.		
	CAD AB OEL	TWA	0.045 mg/m <sup>3</sup> 0.005 ppm
	CAD BC OEL	TWA	0.005 ppm SEN
	ACGIH	TWA	0.005 ppm
	CAD ON OEL	TWA	0.005 ppm 0.2 micromoles/m <sup>3</sup>
	CAD ON OEL	Ceiling	0.02 ppm 0.8 micromoles/m <sup>3</sup>
CAD BC OEL	CEILING	0.01 ppm SEN	

*Consult local authorities for recommended exposure limits.*

Although some of the fillers used in this product may have exposure guidelines, no exposure would be expected under normal handling conditions because of the physical state of the material.

A BEI notation following the exposure guideline refers to a guidance value for assessing biological monitoring results as an indicator of the uptake of a substance from all routes of exposures.

A "skin" notation following the exposure guideline refers to the potential for dermal absorption of the material including mucous membranes and the eyes either by contact with vapors or by direct skin contact.

It is intended to alert the reader that inhalation may not be the only route of exposure and that measures to minimize dermal exposures should be considered.

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. 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 gloves chemically resistant to this material. Examples of preferred glove barrier materials include: Butyl rubber. Polyethylene. Ethyl vinyl alcohol laminate ("EVAL"). Examples of acceptable glove barrier materials include: Chlorinated polyethylene. Natural rubber ("latex"). Nitrile/butadiene rubber ("nitrile" or "NBR"). Neoprene. Viton. Avoid gloves made of: Polyvinyl chloride ("PVC" or "vinyl"). 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. The following should be effective types of air-purifying respirators: Organic vapor cartridge with a particulate pre-filter.

**Ingestion:** Use good personal hygiene. Do not consume or store food in the work area. Wash hands 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	Liquid
Color	Black
Odor	Characteristic
Flash Point - Closed Cup	-10 °C <i>DIN 51755</i>
Flammable Limits In Air	Lower: 0.8 %(V) <i>Estimated</i> Upper: 11.5 %(V) <i>Estimated</i>
Autoignition Temperature	400 °C <i>Estimated</i>
Vapor Pressure	150 hPa @ 20 °C
Boiling Point (760 mmHg)	80 °C <i>Estimated</i> .
Vapor Density (air = 1)	2.5 <i>Estimated</i>
Specific Gravity (H2O = 1)	0.95 <i>Vendor</i>
Freezing Point	No test data available
Melting Point	Not applicable to liquids
Solubility in Water (by weight)	reacts to decompose
pH	<i>Not applicable</i> No test data available
Dynamic Viscosity	No test data available
Volatile Organic Compounds	4.95 lb/gal <i>EPA Method No. 24</i> (typical value)

## 10. Stability and Reactivity

### Stability/Instability

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

**Conditions to Avoid:** Some components of this product can decompose at elevated temperatures.

**Incompatible Materials:** Strong oxidizers. Acids.

**Hazardous Decomposition Products:** Unlikely to be formed under normal industrial use.

### Hazardous Polymerization

Will not occur.

## 11. Toxicological Information

### Acute Toxicity

#### Ingestion

Single dose oral LD50 has not been determined.

#### Skin Absorption

The LD50 has not been determined.

### Sensitization

#### Skin

A component in this mixture has been shown to be a skin sensitizer. Once an individual is sensitized, reexposure to very small amounts of vapor, mist or liquid isophorone diisocyanate may cause an allergic skin reaction. Animal studies have shown that skin contact with isocyanates may play a role in respiratory sensitization.

#### Respiratory

A component in this mixture may cause an allergic respiratory response. Reexposure to extremely low isocyanate concentrations 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 component(s) which have been reported to cause effects on the following organs in animals: Liver. Tissue injury in the upper respiratory tract and lungs has been observed in laboratory animals after repeated excessive exposures to MDI/polymeric MDI aerosols. Methyl ethyl ketone is probably not neurotoxic in itself but it potentiates the neurotoxicity of methyl-n-butyl ketone and n-hexane. Methyl ethyl ketone has caused liver effects in laboratory animals exposed by inhalation to high concentrations.

#### Chronic Toxicity and Carcinogenicity

Lung tumors have been observed in laboratory animals exposed to respirable aerosol droplets of MDI/Polymeric MDI (6 mg/m<sup>3</sup>) 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

Contains component(s) which did not cause birth defects in animals; other fetal effects occurred only at doses toxic to the mother.

#### Reproductive Toxicity

No relevant information found.

#### Genetic Toxicology

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. Contains component(s) which were negative in animal genetic toxicity studies.

#### Component Toxicology - Methyl ethyl ketone

Skin Absorption	LD50, Rabbit 6,440 - 8,050 mg/kg
Component Toxicology - 1-Isocyanato-3,3,5-trimethyl-5-isocyanatomethylcyclohexane	
Skin Absorption	LD50, Rat 1,060 mg/kg
Component Toxicology - 4,4' -Methylenediphenyl diisocyanate	
Skin Absorption	Typical for this family of materials. LD50, Rabbit > 2,000 mg/kg
Component Toxicology - Methyl ethyl ketone	
Inhalation	LC50, 4 h, Vapor, Rat 11,700 ppm
Component Toxicology - 1-Isocyanato-3,3,5-trimethyl-5-isocyanatomethylcyclohexane	
Inhalation	LC50, 4 h, Aerosol, Rat 40 mg/m <sup>3</sup>
Component Toxicology - 4,4' -Methylenediphenyl diisocyanate	
Inhalation	LC50, Aerosol, Rat 490 mg/m <sup>3</sup>
Component Toxicology - Methyl ethyl ketone	
Ingestion	LD50, Rat 2,657 - 5,554 mg/kg
Component Toxicology - 1-Isocyanato-3,3,5-trimethyl-5-isocyanatomethylcyclohexane	
Ingestion	LD50, Rat 4,825 mg/kg
Component Toxicology - 4,4' -Methylenediphenyl diisocyanate	
Ingestion	Typical for this family of materials. LD50, Rat > 10,000 mg/kg

## 12. Ecological Information

### CHEMICAL FATE

#### Data for Component: Methyl ethyl ketone

##### 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): 2.44E-5 atm\*m<sup>3</sup>/mole; 25 °C Measured

Partition coefficient, n-octanol/water (log Pow): 0.29 Measured

Partition coefficient, soil organic carbon/water (Koc): 3.8 Estimated

##### Persistence and Degradability

Biodegradation under aerobic static laboratory conditions is high (BOD20 or BOD28/ThOD > 40%).

##### Indirect Photodegradation with OH Radicals

Rate Constant	Atmospheric Half-life	Method
1.33E-12 cm <sup>3</sup> /s	8 d	Estimated

**Biological oxygen demand (BOD):**

BOD 5	BOD 10	BOD 20	BOD 28
71 - 76 %	71 - 82 %	71 - 89 %	

**Theoretical Oxygen Demand:** 2.44 mg/mg

Data for Component: **Carbon black**

**Movement & Partitioning**

Partitioning from water to n-octanol is not applicable.

**Persistence and Degradability**

Biodegradation is not applicable.

Data for Component: **1-Isocyanato-3,3,5-trimethyl-5-isocyanatomethylcyclohexane**

**Movement & Partitioning**

For this family of materials: In the aquatic and terrestrial environment, movement is expected to be limited by its reaction with water forming predominantly insoluble polyureas.

**Henry's Law Constant (H):** 6.57E-05 atm\*m3/mole; 25 °C Estimated

**Partition coefficient, n-octanol/water (log Pow):** 4.75 Estimated

**Partition coefficient, soil organic carbon/water (Koc):** 36,000 Estimated

**Persistence and Degradability**

Based on stringent OECD test guidelines, this material cannot be considered as readily biodegradable; however, these results do not necessarily mean that the material is not biodegradable under environmental conditions. For this family of materials: 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.

**Indirect Photodegradation with OH Radicals**

Rate Constant	Atmospheric Half-life	Method
8.82E-12 cm3/s	1.212 d	Estimated

**OECD Biodegradation Tests:**

Biodegradation	Exposure Time	Method
62 %	28 d	OECD 301E Test

**Theoretical Oxygen Demand:** 2.59 mg/mg

Data for Component: **4,4' -Methylenediphenyl diisocyanate**

**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.

**ECOTOXICITY**

Data for Component: **Methyl ethyl ketone**

Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50 >100 mg/L in the most sensitive species tested).

**Fish Acute & Prolonged Toxicity**

LC50, bluegill (*Lepomis macrochirus*): 1,690 mg/l

**Aquatic Invertebrate Acute Toxicity**

EC50, water flea *Daphnia magna*, immobilization: 5,091 mg/l

**Aquatic Plant Toxicity**

EC50, alga *Scenedesmus* sp., biomass growth inhibition: 4,300 mg/l

**Toxicity to Micro-organisms**

EC50; bacteria, Growth inhibition (cell density reduction): > 1,000 mg/l

Data for Component: **Carbon black**

Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50 >100 mg/L in the most sensitive species tested).

**Fish Acute & Prolonged Toxicity**

LC50, golden orfe (*Leuciscus idus*): > 1,000 mg/l

**Aquatic Invertebrate Acute Toxicity**

EC50, water flea *Daphnia magna*, immobilization: > 5,600 mg/l

**Data for Component: 1-Isocyanato-3,3,5-trimethyl-5-isocyanatomethylcyclohexane**

Material is moderately toxic to aquatic organisms on an acute basis (LC50/EC50 between 1 and 10 mg/L in most sensitive species tested). For this family of materials: The measured ecotoxicity is that of the hydrolyzed product, generally under conditions maximizing production of soluble species.

**Fish Acute & Prolonged Toxicity**

LC50, golden orfe (*Leuciscus idus*), static, 48 h: 1.8 mg/l

**Aquatic Invertebrate Acute Toxicity**

EC50, water flea *Daphnia magna*, 24 h, immobilization: 84 mg/l

**Aquatic Plant Toxicity**

EC50, alga *Scenedesmus* sp., biomass growth inhibition, 72 h: 119 mg/l

**Toxicity to Micro-organisms**

EC10; bacteria, respiration inhibition, 6 h: 554 mg/l

**Data for Component: 4,4'-Methylenediphenyl diisocyanate**

The measured ecotoxicity is that of the hydrolyzed product, generally under conditions maximizing production of soluble species. Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50 >100 mg/L in the most sensitive species tested).

**Toxicity to Soil Dwelling Organisms**

LC50, Earthworm *Eisenia foetida*, adult, 14 d: > 1,000 mg/kg

### 13. Disposal Considerations

DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. All disposal practices must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. DOW HAS NO CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESSES OF PARTIES HANDLING OR USING THIS MATERIAL. THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN ITS INTENDED CONDITION AS DESCRIBED IN MSDS SECTION: Composition Information. FOR UNUSED & UNCONTAMINATED PRODUCT, the preferred options include sending to a licensed, permitted: Incinerator or other thermal destruction device. As a service to its customers, Dow can provide names of information resources to help identify waste management companies and other facilities which recycle, reprocess or manage chemicals or plastics, and that manage used drums. Telephone Dow's Customer Information Group at 1-800-258-2436 or 1-989-832-1556 (U.S.), or 1-800-331-6451 (Canada) for further details.

**Treatment and disposal methods of used packaging:** Empty containers should be recycled or otherwise disposed of by an approved waste management facility. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. Do not re-use containers for any purpose.

### 14. Transport Information

**TDG Small container**

Proper Shipping Name: COATING SOLUTION

Hazard Class: 3 ID Number: UN1139 Packing Group: PG II

**IMDG**

Proper Shipping Name: COATING SOLUTION

Hazard Class: 3 ID Number: UN1139 Packing Group: PG II

EMS Number: F-E,S-

**ICAO/IATA**

Proper Shipping Name: COATING SOLUTION

Hazard Class: 3 ID Number: UN1139 Packing Group: PG II

**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.

**US. Toxic Substances Control Act**

All components of this product are either on the TSCA Inventory, are exempt from TSCA Inventory Requirements under 40 CFR 720.30, or comply with the PMN Polymer Exemption 40 CFR 723.250.

**CEPA - Domestic Substances List (DSL)**

This product contains one or more substances which are not listed on the Canadian Domestic Substances List (DSL). Contact your Dow representative for more information.

**Hazardous Products Act Information: CPR Compliance**

This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

**Hazardous Products Act Information: WHMIS Classification**

<b>B2</b>	Flammable Liquid with a Flash Point Less Than 37.8 C
<b>D2A</b>	Possible, Probable or Known Human Carcinogen According to Classifications By IARC or ACGIH
<b>D2B</b>	Skin Sensitizer
<b>D2B</b>	Eye or Skin Irritant

**Hazardous Products Act Information: Hazardous Ingredients**

This product contains the following ingredients which are Controlled Products and/or are on the Ingredient Disclosure List (Canadian HPA Section 13 and 14).

Component	CAS #	Amount W/W
Methyl ethyl ketone	78-93-3	> 50.0 - < 60.0 %
Carbon black	1333-86-4	> 5.0 - < 15.0 %
4,4' -Methylenediphenyl diisocyanate	101-68-8	> 0.1 - < 1.0 %
1-Isocyanato-3,3,5-trimethyl-5-isocyanatomethylcyclohexane	4098-71-9	> 0.1 - < 5.0 %

**16. Other Information****Hazard Rating System**

<b>NFPA</b>	<b>Health</b>	<b>Fire</b>	<b>Reactivity</b>
	2	3	0

**Recommended Uses and Restrictions**

A primer -- For use in automotive applications.

**Revision**

Identification Number: 83520 / 1002 / Issue Date 2007.10.11 / Version: 4.0

Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

**Legend**

N/A	Not available
W/W	Weight/Weight
OEL	Occupational Exposure Limit
STEL	Short Term Exposure Limit
TWA	Time Weighted Average
ACGIH	American Conference of Governmental Industrial Hygienists, Inc.
DOW IHG	Dow Industrial Hygiene Guideline
WEEL	Workplace Environmental Exposure Level
HAZ_DES	Hazard Designation
VOL/VOL	Volume/Volume

*Dow Chemical Canada, Inc 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.*