



# Safety Data Sheet

Issue Date 18-Feb-2020

Revision Date 18-Feb-2020

Revision Number 5

## 1. IDENTIFICATION

### Product identifier

**Product Code** ICATFC210A  
**Product Name** ICAT INDUSTRIES AMBERCOAT

### Other means of identification

**Common Name** FC-210, PART A  
**Synonyms** None

### Recommended use of the chemical and restrictions on use

**Recommended Use** industrial paint.  
**Uses advised against** Consumer use, For professional use only. Not for residential use.

### Details of the supplier of the safety data sheet

**Manufacturer Address** iCAT Industries, Inc. 648 Welham Rd. Barrie, Ontario, Canada L4N 9A1  
**Distributor** Tnemec Company, Inc. 6800 Corporate Drive, Kansas City, MO 64120-1372 816-474-3400

### Emergency telephone number

**Company Phone Number** Tnemec Regulatory Dept: 816-474-3400  
**24 Hour Emergency Phone Number** 800-535-5053 (Infotrac)

## 2. HAZARDS IDENTIFICATION

### Classification

#### **OSHA Regulatory Status**

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Specific target organ toxicity (repeated exposure)	Category 2
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### Label elements

#### EMERGENCY OVERVIEW

#### **WARNING**

#### **Hazard statements**

May cause damage to organs through prolonged or repeated exposure



**Appearance** No information available

**Physical state** liquid

**Odor** Slight

#### **Precautionary Statements**

##### **Prevention**

Do not breathe dust/fume/gas/mist/vapors/spray

**Response**

Get medical advice/attention if you feel unwell

**Storage**

Keep away from children

**Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)****Other information**

Toxic to aquatic life with long lasting effects

SEE SAFETY DATA SHEET

If product is in liquid or paste form, physical or health hazards listed related to dust are not considered significant. However, product may contain substances that could be potential hazards if caused to become airborne due to grinding, sanding or other abrasive processes.

Acute Toxicity

17.0695 % of the mixture consists of ingredient(s) of unknown toxicity.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No.	Weight-%
TITANIUM DIOXIDE (TOTAL DUST)	13463-67-7	1 - <10%
DIETHYLTOLUENEDIAMINE	68479-98-1	1 - <10%

\*The exact percentage (concentration) of composition has been withheld as a trade secret.

### 4. FIRST AID MEASURES

**Description of first aid measures****General advice**

If symptoms persist, call a physician.

**Eye contact**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician.

**Skin contact**

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If symptoms persist, call a physician.

**Inhalation**

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

**Ingestion**

Drink 1 or 2 glasses of water. Induce vomiting, but only if victim is fully conscious. Never give anything by mouth to an unconscious person. Immediate medical attention is required.

**Self-protection of the first aider**

Use personal protective equipment. Avoid contact with eyes, skin and clothing.

**Most important symptoms and effects, both acute and delayed****Notes to physician**

Treat symptomatically.

### 5. FIRE-FIGHTING MEASURES

**Suitable extinguishing media**

Carbon dioxide. Foam. Dry chemical. Water.

**Unsuitable extinguishing media** No information available.

**Specific hazards arising from the chemical**

Thermal decomposition can lead to release of irritating gases and vapours In the event of fire and/or explosion do not breathe

fumes

**Hazardous combustion products** Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke). Carbon monoxide. Unidentified organic and inorganic compounds. Oxides of nitrogen. Carbon oxides.

#### **Protective equipment and precautions for firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## **6. ACCIDENTAL RELEASE MEASURES**

### **Personal precautions, protective equipment and emergency procedures**

**Personal precautions** Use personal protective equipment. Avoid contact with eyes, skin and clothing. Ensure adequate ventilation. Remove all sources of ignition.

### **Environmental Precautions**

**Environmental precautions** Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.

### **Methods and material for containment and cleaning up**

**Methods for containment** Remove all sources of ignition. Spills may be collected with inert, absorbent material for proper disposal. Use non-sparking tools, protective gloves, goggles and clothing, adequate ventilation, avoid the breathing of vapors and use respiratory protective devices. Transfer absorbent material to suitable containers for proper disposal.

**Methods for cleaning up** Pick up and transfer to properly labelled containers.

## **7. HANDLING AND STORAGE**

### **Precautions for safe handling**

**Handling** Handle in accordance with good industrial hygiene and safety practice. Wear personal protective equipment. Avoid contact with eyes, skin and clothing. Remove and wash contaminated clothing before re-use. Keep away from open flames, hot surfaces and sources of ignition. Do not breathe vapours or spray mist. Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Do not ingest. Do not eat, drink or smoke when using this product. Wash thoroughly after handling.

### **Conditions for safe storage, including any incompatibilities**

**Storage** Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children.

**Incompatible products** Incompatible with oxidizing agents. Oxides of phosphorous. Isocyanates.

## **8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

### **Control parameters**

#### **Exposure guidelines**

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
TITANIUM DIOXIDE (TOTAL DUST) 13463-67-7	TWA: 10 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup> TWA: 15 mg/m <sup>3</sup>	5000 mg/m <sup>3</sup>

### **Appropriate engineering controls**

**Engineering measures** Sufficient ventilation, in volume and pattern, should be provided through both local and

general exhaust to keep the air contaminant concentration below current applicable OSHA Permissible Exposure Limits (PEL) and ACGIH's Threshold Limit Values (TLV). Appropriate ventilation should be employed to remove hazardous decomposition products formed during welding or flame cutting operations of surfaces coated with this product.

**Individual protection measures, such as personal protective equipment**

- Eye/face protection**                      Tightly fitting safety goggles
- Skin and body protection**              Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.
- Respiratory protection**                  Use only with adequate ventilation. Do not breathe vapors, spray mist, or dust. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates vapor/mist or dust levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH/MSHA approved) during and after application. Follow respirator manufacturer's directions for respirator use.

**General hygiene considerations**      Handle in accordance with good industrial hygiene and safety practice. Avoid breathing dust created by cutting, sanding, or grinding.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

Information on basic physical and chemical properties

<b>Physical state</b>	liquid	<b>Odor</b>	Slight
<b>Appearance</b>	No information available	<b>Odor threshold</b>	No information available
<b>Color</b>	No information available		

<u>Property</u>	<u>Values</u>	<u>Remarks</u>
<b>pH</b>		No data available
<b>Melting point / freezing point</b>	No data available	
<b>Boiling point / boiling range</b>		No information available
<b>Flash point</b>	188 °C / 370 °F	Pensky Martens - Closed Cup
<b>Evaporation rate</b>		No data available
<b>Flammability (solid, gas)</b>	No data available	
<b>Flammability Limit in Air</b>		No data available
<b>Upper flammability limit</b>	NA	
<b>Lower flammability limit</b>	NA	
<b>Vapor pressure</b>		No data available
<b>Vapor density</b>		No data available
<b>Specific gravity</b>	1.52394	g/cm3
<b>Water solubility</b>	Insoluble in cold water	
<b>Solubility in other solvents</b>		No data available
<b>Partition coefficient: n-octanol/water</b>		No data available
<b>Autoignition temperature</b>	No data available	
<b>Decomposition temperature</b>	No information available	
<b>Kinematic viscosity</b>	No information available	
<b>Dynamic viscosity</b>		No data available

Other Information

<b>Molecular weight</b>	No information available
<b>Density</b>	12.7097 lbs/gal
<b>Volatile organic compounds (VOC) content</b>	0.00127 lbs/gal
<b>Total volatiles weight percent</b>	0.01 %
<b>Total volatiles volume percent</b>	0.01 %
<b>Bulk density</b>	No information available

**10. STABILITY AND REACTIVITY**

**Reactivity**

No data available

**Chemical stability**

Stable under recommended storage conditions.

**Possibility of hazardous reactions**

None under normal processing.

**Conditions to avoid**

Heat, flames and sparks.

**Incompatible materials**

Incompatible with oxidizing agents, Oxides of phosphorous, Isocyanates

**Hazardous decomposition products**

Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke). Carbon monoxide. Unidentified organic and inorganic compounds. Carbon oxides. Oxides of nitrogen.

**11. TOXICOLOGICAL INFORMATION**

**Information on Likely Routes of Exposure**

<b>Inhalation</b>	Symptoms of overexposure are dizziness, headache, tiredness, nausea, unconsciousness, cessation of breathing. May cause irritation of respiratory tract.
<b>Eye contact</b>	May cause irritation.
<b>Skin contact</b>	May cause irritation.
<b>Ingestion</b>	May be harmful if swallowed.

Chemical name	LD50 Oral	LD50 Dermal	LC50 Inhalation
TITANIUM DIOXIDE (TOTAL DUST) 13463-67-7	> 10000 mg/kg ( Rat )	-	-
DIETHYLTOLUENEDIAMINE 68479-98-1	= 472 mg/kg ( Rat ) = 485 mg/kg ( Rat )	= 700 mg/kg ( Rabbit )	-

**Information on toxicological effects**

**Symptoms** Symptoms of overexposure are dizziness, headache, tiredness, nausea, unconsciousness, cessation of breathing. May cause skin and eye irritation. May cause respiratory irritation.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Chronic Toxicity** Avoid repeated exposure. Contains a known or suspected carcinogen. Contains a known or suspected mutagen. If product is in liquid or paste form, physical or health hazards listed related to dust are not considered significant. However, product may contain substances that could be potential hazards if caused to become airborne due to grinding, sanding or other abrasive processes.

**Sensitization** No information available.

**Mutagenicity** No information available.

**Carcinogenicity** The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH	IARC	NTP	OSHA
TITANIUM DIOXIDE (TOTAL DUST) 13463-67-7		Group 2B	-	X

**Reproductive effects** No information available.

**STOT - single exposure** No information available

**STOT - repeated exposure** Causes damage to organs through prolonged or repeated exposure

**Target organ effects** blood, Central nervous system, kidney, respiratory system, Skin.

**Aspiration hazard** No information available.

**Acute Toxicity** 17.0695 % of the mixture consists of ingredient(s) of unknown toxicity.

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

Toxic to aquatic life with long lasting effects

31.30739 % of the mixture consists of components(s) of unknown hazards to the aquatic environment

**Persistence and degradability**

No information available.

**Bioaccumulation**

No information available.

**Mobility in Environmental Media**

**Other Adverse Effects** No information available

**13. DISPOSAL CONSIDERATIONS**

**Waste treatment methods**

**Disposal Methods** It must undergo special treatment, e.g. at suitable disposal site, to comply with local regulations.

**Contaminated packaging** Empty containers should be taken to an approved waste handling site for recycling or disposal.

**US EPA Waste Number**

Chemical name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
METHYL ALCOHOL		Included in waste stream: F039		U154
TOLUENE 108-88-3	U220	Included in waste streams: F005, F024, F025, F039, K015, K036, K037, K149, K151		U220

**14. TRANSPORT INFORMATION**

**DOT**

**Proper Shipping Name** PAINT & RELATED MATERIAL NOT REGULATED

**Additional information**

Call TNE MEC Traffic Department - 816-474-3400 for additional information or other modes of Transportation.

**15. REGULATORY INFORMATION**

**International Inventories**

TSCA	Complies
DSL/NDL	Does Not Comply
EINECS/ELINCS	Does Not Comply
ENCS	Does Not Comply
IECSC	Does Not Comply

KECL Does Not Comply  
 PICCS Does Not Comply  
 AICS Does Not Comply

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory  
 DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List  
 EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances  
 ENCS - Japan Existing and New Chemical Substances  
 IECSC - China Inventory of Existing Chemical Substances  
 KECL - Korean Existing and Evaluated Chemical Substances  
 PICCS - Philippines Inventory of Chemicals and Chemical Substances  
 AICS - Australian Inventory of Chemical Substances

**This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61).**

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40n of the Code of Federal Regulations, Part 372.

**SARA 311/312 Hazardous Categorization**

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

**California Prop. 65**

**WARNING:** This product can expose you to the following chemicals which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

Chemical name	California Prop. 65
TITANIUM DIOXIDE (TOTAL DUST) - 13463-67-7	Carcinogen
AMORPHOUS SILICA - 7631-86-9	Carcinogen
AMORPHOUS SILICA - 7631-86-9	Carcinogen
CRYSTALLINE SILICA (QUARTZ) - 14808-60-7	Carcinogen
METHYL ALCOHOL -	Developmental
TOLUENE - 108-88-3	Developmental

**California SCAQMD Rule 443**

Does Not Contain Photochemically Reactive Solvent

**State Right-to-Know**

Chemical name	New Jersey	Massachusetts	Pennsylvania
TITANIUM DIOXIDE (TOTAL DUST) 13463-67-7	X	X	X

**16. OTHER INFORMATION**

<b>NFPA</b>	Health 1	Flammability 0	Instability 0	Physical hazard -
<b>HMIS (Hazardous Material Information System)</b>	Health 1	Flammability 0	Reactivity 0	

Prepared By Tnemec Regulatory Dept: 816-474-3400  
 Revision Date 18-Feb-2020

**Revision Summary**

1 9 4 5 6 7 10 8 11 13 14 15

**Disclaimer**

For specific information regarding occupational safety and health standards, please refer to the Code of Federal Regulations, Title 29, Part 1910.

To the best of our knowledge, the information contained herein is accurate. However, neither the Tnemec Company or any of its subsidiaries assume any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.

**End of SDS**





# Safety Data Sheet

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## 1. IDENTIFICATION

### Product identifier

**Product Code** ICATFC210B  
**Product Name** ICAT INDUSTRIES AMBERCOAT PT B

### Other means of identification

**Common Name** FC-210, PART B  
**Synonyms** None

### Recommended use of the chemical and restrictions on use

**Recommended Use** industrial paint.  
**Uses advised against** Consumer use, For professional use only. Not for residential use.

### Details of the supplier of the safety data sheet

**Manufacturer Address** iCAT Industries, Inc. 648 Welham Rd. Barrie, Ontario, Canada L4N 9A1  
**Distributor** Tnemec Company, Inc. 6800 Corporate Drive, Kansas City, MO 64120-1372 816-474-3400

### Emergency telephone number

**Company Phone Number** Tnemec Regulatory Dept: 816-474-3400  
**24 Hour Emergency Phone Number** 800-535-5053 (Infotrac)

## 2. HAZARDS IDENTIFICATION

### Classification

#### **OSHA Regulatory Status**

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2B
Respiratory sensitization	Category 1
Skin sensitization	Category 1
Specific target organ toxicity (single exposure)	Category 3
Specific target organ toxicity (repeated exposure)	Category 1

### Label elements

#### **EMERGENCY OVERVIEW**

**Danger**

#### **Hazard statements**

Harmful if inhaled  
Causes skin irritation  
Causes eye irritation  
May cause allergy or asthma symptoms or breathing difficulties if inhaled  
May cause an allergic skin reaction  
May cause respiratory irritation. May cause drowsiness or dizziness  
Causes damage to organs through prolonged or repeated exposure

**Appearance** white light yellow**Physical state** flakes Solid**Odor** musty**Precautionary Statements****Prevention**

Use only outdoors or in a well-ventilated area  
 Wash face, hands and any exposed skin thoroughly after handling  
 Wear protective gloves/protective clothing/eye protection/face protection  
 In case of inadequate ventilation wear respiratory protection  
 Contaminated work clothing should not be allowed out of the workplace  
 Do not breathe dust/fume/gas/mist/vapors/spray  
 Do not eat, drink or smoke when using this product

**Response**

Get medical advice/attention if you feel unwell  
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 If eye irritation persists: Get medical advice/attention  
 IF ON SKIN: Wash with plenty of soap and water  
 Take off contaminated clothing and wash before reuse  
 If skin irritation or rash occurs: Get medical advice/attention  
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician

**Storage**

Store in a well-ventilated place. Keep container tightly closed  
 Store locked up  
 Keep away from children

**Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**

Persons allergic to isocyanates, and particularly those suffering from asthma or other respiratory conditions, should not work with isocyanates

**Other information**

SEE SAFETY DATA SHEET

Acute Toxicity

0 % of the mixture consists of ingredient(s) of unknown toxicity.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No.	Weight-%
DIPHENYLMETHANE DIISOCYANATE (MDI) MONOMER	101-68-8	60 - 100%
DIPHENYLMETHANE DIISOCYANATE (MDI) POLYMER	5873-54-1	1 - <10%

\*The exact percentage (concentration) of composition has been withheld as a trade secret.

### 4. FIRST AID MEASURES

**Description of first aid measures**

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<b>General advice</b>	If symptoms persist, call a physician.
<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician.
<b>Skin contact</b>	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If symptoms persist, call a physician.
<b>Inhalation</b>	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.
<b>Ingestion</b>	If swallowed, do not induce vomiting. Get medical attention immediately. Rinse mouth.
<b>Self-protection of the first aider</b>	Use personal protective equipment. Avoid contact with eyes, skin and clothing.

**Most important symptoms and effects, both acute and delayed**

**Notes to physician** Treat symptomatically.

## 5. FIRE-FIGHTING MEASURES

**Suitable extinguishing media**

Dry chemical. Carbon dioxide. Foam. Water spray.

**Unsuitable extinguishing media** High volume water jet.

**Specific hazards arising from the chemical**

Thermal decomposition can lead to release of irritating gases and vapours In the event of fire and/or explosion do not breathe fumes

**Hazardous combustion products** Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke). Carbon monoxide. Unidentified organic and inorganic compounds. Oxides of nitrogen. Carbon oxides. Isocyanates.

**Protective equipment and precautions for firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

**Personal precautions** Use personal protective equipment. Avoid contact with eyes, skin and clothing. Ensure adequate ventilation. Remove all sources of ignition. Persons allergic to isocyanates, and particularly those suffering from asthma or other respiratory conditions, should not work with isocyanates.

**Environmental Precautions**

**Environmental precautions** Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.

**Methods and material for containment and cleaning up**

**Methods for containment** Remove all sources of ignition. Spills may be collected with inert, absorbent material for proper disposal. Use non-sparking tools, protective gloves, goggles and clothing, adequate ventilation, avoid the breathing of vapors and use respiratory protective devices. Transfer absorbent material to suitable containers for proper disposal.

**Methods for cleaning up** Pick up and transfer to properly labelled containers.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

#### **Handling**

Handle in accordance with good industrial hygiene and safety practice. Wear personal protective equipment. Avoid contact with eyes, skin and clothing. Remove and wash contaminated clothing before re-use. Keep away from open flames, hot surfaces and sources of ignition. Do not breathe vapours or spray mist. Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Do not ingest. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. **INDIVIDUALS WITH LUNG OR BREATHING PROBLEMS OR PRIOR REACTION TO ISOCYANATES MUST NOT BE EXPOSED TO VAPOR OR SPRAY MIST.** Do not breathe vapor or spray mist. Wear an appropriate, properly fitted respirator (NIOSH/MSHA approved) during and after application unless air monitoring demonstrates vapor/mist levels are below applicable limits. An airline respirator (TC 19C NIOSH/MSHA) is recommended. A vapor-particulate respirator (TC 23C NIOSH/MSHA) may be appropriate where air monitoring demonstrates vapors are less than ten times the applicable exposure limits and the isocyanate concentration is less than its applicable exposure limit. The use of an air-supplied respirator is mandatory whenever the airborne concentration of isocyanate monomer is unknown.

### Conditions for safe storage, including any incompatibilities

#### **Storage**

Keep container tightly closed in a dry and well-ventilated place. Store locked up. Keep out of the reach of children.

#### **Incompatible products**

Water. Amines. Strong acids. Alcohols. copper.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

#### Exposure guidelines

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
DIPHENYLMETHANE DIISOCYANATE (MDI) MONOMER 101-68-8	TWA: 0.005 ppm	Ceiling: 0.02 ppm Ceiling: 0.2 mg/m <sup>3</sup>	75 mg/m <sup>3</sup>

### Appropriate engineering controls

#### **Engineering measures**

Sufficient ventilation, in volume and pattern, should be provided through both local and general exhaust to keep the air contaminant concentration below current applicable OSHA Permissible Exposure Limits (PEL) and ACGIH's Threshold Limit Values (TLV). Appropriate ventilation should be employed to remove hazardous decomposition products formed during welding or flame cutting operations of surfaces coated with this product.

### Individual protection measures, such as personal protective equipment

#### **Eye/face protection**

Tightly fitting safety goggles If splashes are likely to occur, wear face-shield.

#### **Skin and body protection**

Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

#### **Respiratory protection**

Use only with adequate ventilation. Do not breathe vapors, spray mist, or dust. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates vapor/mist or dust levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH/MSHA approved) during and after application. Follow respirator manufacturer's directions for respirator use.

#### **General hygiene considerations**

Handle in accordance with good industrial hygiene and safety practice. Avoid breathing dust created by cutting, sanding, or grinding.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Information on basic physical and chemical properties**

<b>Physical state</b>	flakes Solid	<b>Odor</b>	musty
<b>Appearance</b>	white light yellow	<b>Odor threshold</b>	No information available
<b>Color</b>	No information available		

<u>Property</u>	<u>Values</u>	<u>Remarks</u>
pH		No data available
Melting point / freezing point	No data available	
Boiling point / boiling range		No information available
Flash point	199 °C / 390 °F	Pensky Martens - Closed Cup
Evaporation rate		No data available
Flammability (solid, gas)	No data available	
Flammability Limit in Air		No data available
Upper flammability limit	NA	
Lower flammability limit	NA	
Vapor pressure		No data available
Vapor density		No data available
Specific gravity	1.1883	g/cm3
Water solubility	Insoluble in cold water	
Solubility in other solvents		No data available
Partition coefficient: n-octanol/water		No data available
Autoignition temperature	No data available	
Decomposition temperature	No information available	
Kinematic viscosity	No information available	
Dynamic viscosity		No data available

**Other Information**

<b>Molecular weight</b>	No information available
<b>Density</b>	9.91041 lbs/gal
<b>Volatile organic compounds (VOC) content</b>	0 lbs/gal
<b>Total volatiles weight percent</b>	0 %
<b>Total volatiles volume percent</b>	0 %
<b>Bulk density</b>	No information available

**10. STABILITY AND REACTIVITY****Reactivity**

Reacts with water Temperatures above 177°C

**Chemical stability**

Stable under recommended storage conditions.

**Possibility of hazardous reactions**

Reacts with water. Temperatures above 177°C.

**Conditions to avoid**

Heat, flames and sparks. Protect from water. Heat.

**Incompatible materials**

Water, Amines, Strong acids, Alcohols, copper

**Hazardous decomposition products**

Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke). Carbon monoxide. Unidentified organic and inorganic compounds. Oxides of nitrogen. Isocyanates. Carbon oxides.

**11. TOXICOLOGICAL INFORMATION**

**Information on Likely Routes of Exposure**

<b>Inhalation</b>	May cause allergy or asthma symptoms or breathing difficulties if inhaled. Contains isocyanate monomer. If subject to spray application, engineering and administrative controls must be instituted to maintain an exposure level below .005ppm. If these controls are not adequate, the use of an air-supplied respirator is mandatory.
<b>Eye contact</b>	Causes serious eye irritation.
<b>Skin contact</b>	Irritating to skin. May cause sensitization by skin contact.
<b>Ingestion</b>	Harmful if swallowed.

Chemical name	LD50 Oral	LD50 Dermal	LC50 Inhalation
DIPHENYLMETHANE DIISOCYANATE (MDI) MONOMER 101-68-8	= 31600 mg/kg ( Rat ) = 9200 mg/kg ( Rat )	-	= 369 mg/m <sup>3</sup> ( Rat ) 4 h

**Information on toxicological effects**

<b>Symptoms</b>	Symptoms of overexposure are dizziness, headache, tiredness, nausea, unconsciousness, cessation of breathing. Skin disorders. Respiratory disorders. Irritating to eyes and skin. Irritating to respiratory system.
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**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

<b>Chronic Toxicity</b>	Avoid repeated exposure. Prolonged exposure may cause chronic effects. Possible risks of irreversible effects. Repeated contact may cause allergic reactions in very susceptible persons. May cause sensitization by inhalation and skin contact.
<b>Sensitization</b>	May cause sensitization of susceptible persons.
<b>Mutagenicity</b>	No information available.
<b>Carcinogenicity</b>	The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH	IARC	NTP	OSHA
DIPHENYLMETHANE DIISOCYANATE (MDI) MONOMER 101-68-8		Group 3	-	

<b>Reproductive effects</b>	No information available.
<b>STOT - single exposure</b>	Causes damage to organs
<b>STOT - repeated exposure</b>	Causes damage to organs through prolonged or repeated exposure
<b>Target organ effects</b>	Eyes, respiratory system, Skin.
<b>Aspiration hazard</b>	No information available.

<b>Acute Toxicity</b>	0 % of the mixture consists of ingredient(s) of unknown toxicity.
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**12. ECOLOGICAL INFORMATION****Ecotoxicity**

96 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

**Persistence and degradability**

No information available.

**Bioaccumulation**

No information available.

**Mobility in Environmental Media****Other Adverse Effects**

No information available

**13. DISPOSAL CONSIDERATIONS**

**Waste treatment methods**

**Disposal Methods** It must undergo special treatment, e.g. at suitable disposal site, to comply with local regulations.

**Contaminated packaging** Empty containers should be taken to an approved waste handling site for recycling or disposal.

**14. TRANSPORT INFORMATION**

**DOT**

**Proper Shipping Name** PAINT & RELATED MATERIAL NOT REGULATED

**Additional information**

Call TNE MEC Traffic Department - 816-474-3400 for additional information or other modes of Transportation.

**15. REGULATORY INFORMATION**

**International Inventories**

<b>TSCA</b>	Complies
<b>DSL/NDSL</b>	Complies
<b>EINECS/ELINCS</b>	Complies
<b>ENCS</b>	Complies
<b>IECSC</b>	Complies
<b>KECL</b>	Complies
<b>PICCS</b>	Complies
<b>AICS</b>	Complies

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List  
**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances  
**ENCS** - Japan Existing and New Chemical Substances  
**IECSC** - China Inventory of Existing Chemical Substances  
**KECL** - Korean Existing and Evaluated Chemical Substances  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**AICS** - Australian Inventory of Chemical Substances

**The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):**

<b>Chemical name</b>	<b>HAPS Data</b>
DIPHENYLMETHANE DIISOCYANATE (MDI) MONOMER	

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and and Title 40n of the Code of Federal Regulations, Part 372:

Chemical name	SARA 313 - Threshold Values
DIPHENYLMETHANE DIISOCYANATE (MDI) MONOMER - 101-68-8	1.0
DIPHENYLMETHANE DIISOCYANATE (MDI) POLYMER - 5873-54-1	1.0

**SARA 311/312 Hazardous**

**Categorization**

<b>Acute Health Hazard</b>	Yes
<b>Chronic Health Hazard</b>	Yes
<b>Fire Hazard</b>	No
<b>Sudden Release of Pressure Hazard</b>	No
<b>Reactive Hazard</b>	Yes

**CERCLA**

Chemical name	Hazardous Substances RQs	CERCLA EHS RQs	RQ
DIPHENYLMETHANE DIISOCYANATE (MDI) MONOMER 101-68-8	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ

**California Prop. 65**

None of the ingredients are listed with California Proposition 65.

**California SCAQMD Rule 443**

Does Not Contain Photochemically Reactive Solvent

**State Right-to-Know**

Chemical name	New Jersey	Massachusetts	Pennsylvania
DIPHENYLMETHANE DIISOCYANATE (MDI) MONOMER 101-68-8	X	X	X
DIPHENYLMETHANE DIISOCYANATE (MDI) POLYMER 5873-54-1	X		

**16. OTHER INFORMATION**

<b>NFPA</b>	Health 3	Flammability 0	Instability 1	Physical hazard -
<b>HMIS (Hazardous Material Information System)</b>	Health 3	Flammability 0	Reactivity 1	

Prepared By Tnemec Regulatory Dept: 816-474-3400  
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 Revision Summary  
 1 9 4 5 6 7 10 8 11 14 15

**Disclaimer**

For specific information regarding occupational safety and health standards, please refer to the Code of Federal Regulations, Title 29, Part 1910.

To the best of our knowledge, the information contained herein is accurate. However, neither the Tnemec Company or any of its subsidiaries assume any liability whatsoever for the accuracy of completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.

End of SDS