

## SAFETY DATA SHEET

According to Regulation (EC) No 1907/2006 (REACH)

### 1. PRODUCT IDENTIFICATION

Trade Name(s): XT5 Activator

Product Description: Coating

Synonyms: N/A

CAS No: N/A

Supplier:

EPRO Services, Inc.

PO Box 347

Derby, KS 67037

800-882-1896 (8:00am – 5:00pm CST)

### 2. HAZARD(S) IDENTIFICATION

**Physical hazards:** Not classified

**Health hazards**

**Skin corrosion/irritation:** Category 2

**Serious eye damage/eye irritation:** Category 2B

**Sensitization, respiratory:** Category 1

**Sensitization, skin:** Category 1

**Specific target organ toxicity, single exposure:** Category 3 respiratory tract irritation

**Specific target organ toxicity, repeated exposure:** Category 2

**Environmental hazards:** Not classified.

**OSHA defined hazards:** Not classified.

Label elements



**Signal word:** Danger

**Hazard statement:** Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. May cause respiratory irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause damage to organs through prolonged or repeated exposure.

**Precautionary statement**

**Prevention:** Do not breathe mist or vapor. Wash thoroughly after handling. Wear protective gloves. In case of inadequate ventilation wear respiratory protection.

**Response:** If on skin, wash with plenty of water. If skin irritation or rash occurs, get medical advice/attention. If inhaled, remove person to fresh air and keep comfortable for breathing. If in eyes, rinse cautiously with

water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. If concerned, get medical advice/attention. If eye irritation persists, get medical advice/attention. If exposed or concerned, get medical advice/attention. Take off contaminated clothing and wash before reuse.

**Storage:** Store in a well-ventilated place. Keep container tightly closed. Store locked up.

**Disposal:** Dispose of contents/container in accordance with local/regional/national/international regulations.

**Hazards not otherwise classified (HNOC):** None known.

**Supplemental information:** 100% of the mixture consist of components of unknown acute oral toxicity. 100% of the mixture consists of components of unknown acute dermal toxicity. 100% of the mixture consists of components of unknown acute inhalation toxicity. 100% of the mixture consists of components of unknown acute hazards to the aquatic environment. 100% of the mixture consists of components of unknown long-term hazards to the aquatic environment.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Mixture

<u>Chemical Name</u>	<u>CAS No.</u>	<u>%</u>
Diphenylmethane Diisocyanate (isomers and homologues)	9016-87-9	90 - 100

#### Isomer

<u>Chemical Name</u>	<u>CAS No.</u>	<u>%</u>
4,4'-Methylenediphenyl Diisocyanate	101-68-8	55 - 65

**Composition comments:** CAS 101-68-8 is an MDI isomer that is part of CAS 9016-87-9.

### 4. FIRST-AID MEASURES

**Inhalation:** Move to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If experiencing respiratory symptoms, call a poison center or physician.

**Skin contact:** Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders, seek medical attention and take along these instructions. Wash contaminated clothing before reuse.

**Eye contact:** Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses. If present and easy to do. Continue rinsing. Get medical attention if irritation develop and persists.

**Ingestion:** Rinse mouth. Get medical advice/attention if symptoms occur.

**Most important symptoms/effects, acute and delayed:** Eye irritation. Symptoms may include stinging, tearing, redness, and discomfort. May cause respiratory irritation. Difficulty in breathing. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash. Prolonged exposure may cause chronic effects.

**Indication of immediate medical attention and special treatment needed:** Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

**General information:** If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the materials involved and take precautions to protect themselves. Show this SDS to the doctor in attendance. Wash contaminated clothing before reuse.

### 5. FIRE-FIGHTING MEASURES

**Suitable extinguishing media:** Water fog. Foam. Carbon dioxide (CO2). Dry chemical powder.

**Unsuitable extinguishing media:** Water. Do not use water jet as an extinguisher as this will spread the fire.

**Specific hazards arising from the chemical:** During fire, gases hazardous to health may be formed.

**Special protective equipment and precautions for firefighters:** Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

**Firefighting equipment/instructions:** Move containers from fire area if you can do so without risk.

**Specific methods:** Use standard firefighting procedures and consider the hazards of other involved materials.

**General fire hazards:** No unusual fire or explosion hazards noted.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment, and emergency procedures:** Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged container or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection see section 8 of the SDS.

**Methods and materials for containment and cleaning up:** Large spills: Stop the flow of material if this is without risk. Dike the spilled material where possible. Absorb in vermiculite, dry sand, or earth and place into containers. Following product recovery, flush area with water. Small spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

**Environmental precautions:** Avoid discharge into drains, water courses, or onto the ground.

## 7. HANDLING AND STORAGE

**Precautions for safe handling:** Do not breathe mist or vapor. Avoid contact with eyes, skin, and clothing. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

**Conditions for safe storage, including any incompatibilities:** Store locked up. Store in tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of SDS).

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Occupational exposure limits

#### US OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

<u>Isomer</u>	<u>Type</u>	<u>Value</u>
4,4'-Methylenediphenyl Diisocyanate (CAS 101-68-8)	Ceiling	.2 mg/m <sup>3</sup> 0.02 ppm

#### US ACGIH Threshold Limit Values

<u>Isomer</u>	<u>Type</u>	<u>Value</u>
4,4'-Methylenediphenyl Diisocyanate (CAS 101-68-8)	TWA	0.005 ppm

#### US NIOSH: Pocket Guide to Chemical Hazards

<u>Isomer</u>	<u>Type</u>	<u>Value</u>
4,4'-Methylenediphenyl Diisocyanate (CAS 101-68-8)	Ceiling	0.2 mg/m <sup>3</sup> 0.02 ppm
	TWA	0.05 mg/m <sup>3</sup> 0.005 ppm

**Biological limit values:** No biological exposure limits noted for the ingredients.

**Appropriate engineering controls:** Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. General ventilation normally adequate. Eye wash facilities and emergency shower must be available when handling this product.

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

**Eye/face protection:** Chemical respirator with organic vapor cartridge and full facepiece.

**Skin protection – hand:** Wear appropriate chemical resistant gloves.

**Skin protection – other:** Wear appropriate chemical resistant clothing. Use of impervious apron is recommended.

**Respiratory protection:** Use a NIOSH/MSHA approved respirator if there is risk of exposure to dust/fume at levels exceeding exposure limits. Chemical respirator with organic vapor cartridge and full facepiece.

**Thermal hazards:** Not applicable.

**General hygiene considerations:** Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical state:** Liquid

**Odor:** Musty

**pH:** Not available

**Initial boiling point & range:** 572°F (>300°C)

**Evaporation rate:** Not available

**Flammability limit-lower %:** Not available

**Explosive limit-lower %:** Not available

**Vapor pressure:** 0.0001 hPa est.

**Relative density:** Not available

**Partition coefficient (n-octanol/water):** Not available

**Decomposition temperature:** Not available

**Viscosity temperature:** 77°F (25°C)

**Explosive properties:** Not explosive

**Oxidizing properties:** Not oxidizing

**Color:** Brown

**Odor threshold:** 0.4 ppm

**Melting/freezing point:** crystals below 10°C

**Flash point:** >392.0°F (>200.0°C)

**Flammability (solid, gas):** Not applicable

**Flammability limit-upper %:** Not available

**Explosive limit-upper %:** Not available

**Vapor density:** 8.5

**Solubility (water):** 6.8 mg/l

**Auto-ignition temperature:** >1112°F (600°C)

**Viscosity:** 40 – 60 cP

**Density:** 1.18 – 1.24 g/cm<sup>3</sup>

**Explosivity:** Not explosive

**Specific gravity:** 1.2 estimate

## 10. STABILITY AND REACTIVITY

**Reactivity:** The product is stable and non-reactive under normal condition of use, storage, and transport.

**Chemical stability:** Material is stable under normal conditions.

**Possibility of hazardous reactions:** No dangerous reaction known under conditions of normal use.

**Conditions to avoid:** Contact with incompatible materials.

**Incompatible materials:** Strong oxidizing agents. Alkaline metals. Alcohols. Phenols.

**Hazardous decomposition products:** No hazardous decomposition products are known.

## 11. TOXICOLOGICAL INFORMATION

**Information on likely routes of exposure**

**Inhalation:** May cause damage to the respiratory system. May cause allergy or asthma symptoms or breathing difficulties.

**Skin contact:** Causes skin irritation. May cause an allergic skin reaction.

**Eye contact:** Causes eye irritation.

**Ingestion:** Expected to be a low ingestion hazard.

**Symptoms related to the physical, chemical, and toxicological characteristics:** Eye irritation. Symptoms may include tearing, redness, swelling, and discomfort. May cause respiratory irritation. Difficulty breathing. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.

#### Information on toxicological effects

**Acute toxicity:** Not known.

#### Toxicological data

<u>Isomer</u>	<u>Species</u>	<u>Test Results</u>
4,4'-Methylenediphenyl diisocyanate (CAS 101-68-8)		
<u>Acute Inhalation</u>		
LC50	Rat	0.369 mg/l, 4 hrs

**Skin corrosion/irritation:** Causes skin irritation.

**Serious eye damage/eye irritation:** Causes eye irritation.

#### Respiratory or skin sensitization

**Respiratory sensitization:** May cause allergy or asthma symptoms or breathing difficulties if inhaled.

**Skin sensitization:** May cause an allergic skin reaction.

**Germ cell mutagenicity:** No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

**Carcinogenicity:** Not classifiable as to carcinogenicity to humans.

#### IARC Monographs. Overall Evaluation of Carcinogenicity

4,4'-Methylenediphenyl Diisocyanate (CAS 101-68-8): 3 Not classifiable as to carcinogenicity to humans

Diphenylmethane diisocyanate (isomers and homologues) (CAS 9016-87-9): 3 Not classifiable as to carcinogenicity to humans

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052):** Not listed.

**US National Toxicology Program (NTP) Report on Carcinogens:** Not listed.

**Reproductive toxicity:** This product is not expected to cause reproductive or developmental effects.

**Specific target organ toxicity – single exposure:** May cause respiratory irritation.

**Specific target organ toxicity – repeated exposure:** May cause damage to organs through prolonged or repeated exposure.

**Aspiration hazard:** Not an aspiration hazard.

**Chronic effects:** May cause damage to organs through prolonged or repeated exposure.

## 12. ECOLOGICAL INFORMATION (non-mandatory)

**Ecotoxicity:** This product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

**Persistence and degradability:** No data is available on the degradability of this product.

**Bioaccumulative potential:** No data available.

**Mobility in soil:** No data available.

**Other adverse effects:** The product contains volatile organic compounds which have a photochemical ozone creation potential.

### 13. DISPOSAL CONSIDERATIONS (non-mandatory)

**Disposal instructions:** Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.

**Local disposal regulations:** Dispose in accordance with all applicable regulations.

**Hazardous waste code:** Waste code should be assigned in discussion between user, producer, and waste disposal company.

**Waste from residues / unused products:** Dispose of in accordance with local regulations. Empty containers or liner may retain some product residues. This material and its container must be disposed of in a safe manner (see Disposal instructions).

**Contaminated packaging:** Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty container should be taken to an approved waste handling site for recycling or disposal.

### 14. TRANSPORT INFORMATION (non-mandatory)

**DOT:** Not regulated as dangerous goods.

**IATA:** Not regulated as dangerous goods.

**IMDG:** Not regulated as dangerous goods.

**Transport in bulk according to Annex II of MARPO 73/78 and the IBC Code:** Not established.

### 15. REGULATORY INFORMATION (non-mandatory)

**US federal regulations:** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D):** Not regulated.

**TSCA Chemical Action Plans, Chemicals of Concern**

4,4'-Methylenediphenyl Diisocyanate (CAS 101-68-8): Methylene Diphenyl Diisocyanate (MDI) And Related Compounds Action (RIN 2070-ZA-15)

Diphenylmethane diisocyanate (isomers and homologues) (CAS 9016-87-9): Methylene Diphenyl Diisocyanate (MDI) And Related Compounds Action (RIN 2070-ZA-15)

**CERLA Hazardous Substance List (40 CFR 302.4):**

4,4'-Methylenediphenyl Diisocyanate (CAS 101-68-8): Listed

**SARA 304 Emergency release notification:** Not regulated.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):** Not listed.

**Superfund Amendment and Reauthorization Act of 1986 (SARA)**

**SARA 302 Extremely hazardous substance:** Not listed.

**SARA 311/312 Hazardous chemical:** Yes

Classified hazard categories: Skin corrosion or irritation. Serious eye damage or eye irritation. Respiratory or skin sensitization. Specific target organ toxicity (single or repeated exposure).

**SARA 313 (TRI reporting):**

Chemical name	CAS number	% by wt.
4,4'-Methylenediphenyl Diisocyanate	101-68-8	55 – 65
Diphenylmethane diisocyanate (isomers and homologues)	9016-87-9	90 - 100

**Other federal regulations**

**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List:** 4,4'-Methylenediphenyl Diisocyanate (CAS 101-68-8)

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):** Not regulated.

**Safe Drinking Water Act (SDWA):** Not regulated.

#### US state regulations

**US California Candidate Chemicals List. Safer Consumer Products Regulation (Cal. Code Regs, tit. 22, 69502.3, subd. (a))**

4,4'-Methylenediphenyl Diisocyanate (CAS 101-68-8)

Diphenylmethane diisocyanate (isomers and homologues) (CAS 9016-87-9)

**California Proposition 65:** California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65). This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

#### International Inventories

Country or region	Inventory Name	On Inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
US & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*"Yes" indicates that all components of this product comply with the inventory requirements by the governing countries. "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country.

## 16. OTHER INFORMATION

#### HMIS ratings

Health: 2

Flammability: 0

Physical hazard: 0

#### NFPA ratings

Health: 2

Flammability: 0

Instability: 0

This information provided on this Safety Data Sheet is correct to the best of our knowledge, information, and belief at the date of its publication, however, no guarantee is made to its accuracy. The information given is designated only as a guide for safe handling, use, processing, storage, transportation, disposal, and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process. This material is intended for industrial use only. No warranty, expressed or implied, is made.