

SAFETY DATA SHEET



1. Identification

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USA

TRANSPORTATION EMERGENCY

CALL CHEMTREC: (800) 424-9300
INTERNATIONAL: (703) 527-3887

NON-TRANSPORTATION

Emergency Phone: Call Chemtrec
Information Phone: (844) 646-0545

Product Name: DESMOTHERM® 2170
Material Number: 00835242
Chemical Family: Blocked Polyisocyanate Containing Solvent
Use: Raw material for coatings, adhesives, sealants, or elastomers in industrial applications
Restrictions on use: Do-It-Yourself Applications, Medical applications

2. Hazards Identification

GHS Classification

Flammable liquids:	Category 3
Acute toxicity (Inhalation):	Category 4
Skin irritation:	Category 2
Serious eye damage:	Category 1
Specific target organ toxicity - single exposure:	Category 3 (Central nervous system)

GHS Label Elements

Hazard pictograms:



Signal word: Danger

Hazard statements: Flammable liquid and vapour.
Causes skin irritation.
Causes serious eye damage.
Harmful if inhaled.
May cause drowsiness or dizziness.

Precautionary statements: **Prevention:**
Keep away from heat, sparks, open flames, and hot surfaces. - No smoking

Material Name: DESMOTHERM® 2170

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Keep container tightly closed.
 Ground/bond container and receiving equipment.
 Use explosion-proof electrical, ventilating and lighting equipment.
 Use only non-sparking tools.
 Take precautionary measures against static discharge.
 Avoid breathing dust, mist, gas, vapors or spray.
 Wash skin and face thoroughly after handling.
 Use only outdoors or in a well-ventilated area.
 Wear permeation resistant protective gloves and clothing. Wear eye and face protection.

Response:

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
 IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing.
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a doctor or emergency medical facility (i.e., 911). Call a doctor or emergency medical facility (i.e. 911) if you feel unwell.
 If skin irritation occurs: Get medical attention.
 Take off contaminated clothing and wash before reuse.
 In case of fire: Use dry chemical, carbon dioxide (CO₂), foam, or water spray (for large fires) to extinguish.

Storage:

Store in a well-ventilated place. Keep container tightly closed. Keep cool.
 Store locked up.

Disposal:

Dispose of contents and container in accordance with existing federal, state, and local environmental control laws.

3. Composition/Information on Ingredients

Hazardous Components

This product contains a blocked polyisocyanate which is considered essentially unreactive at room temperature even though it may contain a small amount of excess blocking agent. Generation of free diisocyanate and blocking agent vapors are expected in the oven during curing or during any accidental heating of this product above its unblocking temperature.

Concentration	Components	CAS-No.
60 - 100%	Diethyl Malonate Blocked Prepolymer based on MDI - Resin	200414-59-1
10 - 30%	n-Butyl Acetate	123-86-4
3 - 7%	Petroleum Solvent	64742-95-6
3 - 7%	Isobutanol	78-83-1
3 - 7%	1,2,4-Trimethylbenzene	95-63-6
1 - 5%	Diethylmalonate	105-53-3
1 - 5%	1,3,5-Trimethylbenzene	108-67-8
0.1 - 1%	N-Propylbenzene	103-65-1
0.1 - 1%	Xylene	1330-20-7

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The specific chemical identity and/or exact percentage of component(s) have been withheld as a trade secret.

4. First Aid Measures

Most Important Symptom(s)/Effect(s)

Acute: This product contains a blocked polyisocyanate which is considered essentially unreactive at room temperature even though it may contain a small amount of excess blocking agent. Generation of free diisocyanate and blocking agent vapors are expected in the oven during curing or during any accidental heating of this product above its unblocking temperature. The health effects and symptoms in this section apply to the free diisocyanate and blocking agent vapors thus produced, as well as to any exposure to solvent ingredients, if included in this product.,Isocyanate vapors or mist at concentrations above the exposure limits or guidelines can irritate (burning sensation) the mucous membranes in the respiratory tract (nose, throat, lungs) with symptoms of runny nose, sore throat, coughing, chest discomfort, shortness of breath and reduced lung function (breathing difficulty). Persons with a preexisting, nonspecific bronchial hyperreactivity can respond to concentrations below the exposure limits or guidelines with similar symptoms as well as asthma attack or asthma-like symptoms. Exposure well above the exposure limits or guidelines may lead to bronchitis, bronchial spasm and pulmonary edema (fluid in lungs). Chemical or hypersensitivity pneumonitis, with flu-like symptoms (e.g. fever, chills), has also been reported. These symptoms can be delayed up to several hours after exposure. These effects are usually reversible.

Causes skin irritation with symptoms of reddening, itching, and swelling. Can cause sensitization. Persons previously sensitized can experience allergic skin reaction with symptoms of reddening, itching, swelling, and rash. Cured material is difficult to remove.

Causes serious eye damage with symptoms of eye burns, corneal injury, and possible blindness. Vapor or aerosol may cause irritation with symptoms of burning and tearing.

May cause irritation of the digestive tract; Symptoms may include abdominal pain, nausea, vomiting, and diarrhea.

,Inhalation of the solvents may cause central nervous system depression with symptoms of nausea, lightheadedness, drowsiness, dizziness and loss of co-ordination.

Delayed: Symptoms affecting the respiratory tract can also occur several hours after overexposure.

Eye Contact

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Use lukewarm water if possible. Use fingers to ensure that eyelids are separated and that the eye is being irrigated. Then remove contact lenses, if easily removable, and continue eye irrigation for not less than 15 minutes. Get medical attention if irritation develops.

Skin Contact

If direct skin contact with isocyanates occurs, immediately remove contaminated clothing and shoes. Wipe off the isocyanate product from the skin using dry towels or other similar absorbent fabric. If readily available, apply a polyglycol-based cleanser (e.g. SKC, Inc. (SKC) D-TAM™ Skin Cleanser) or corn oil. Wash with soap and warm water and pat dry. If a polyglycol-based cleanser is not available, wash with soap and warm water for 15 minutes. If available, use a wipe test pad to verify decontamination is complete (e.g. SKC SWYPE™). Get medical attention if irritation develops. Discard or wash contaminated clothing before reuse.

Inhalation

Move to an area free from further exposure. Extreme asthmatic reactions that may occur in sensitized persons can be life threatening. Get medical attention immediately. Administer oxygen or artificial

respiration as needed. Asthmatic symptoms may develop and may be immediate or delayed up to several hours.

Ingestion

Do NOT induce vomiting. Wash mouth out with water. Do not give anything by mouth to an unconscious person. Get medical attention.

Notes to Physician

Eyes: Stain for evidence of corneal injury. If cornea is burned, instill antibiotic/steroid preparation as needed. Workplace vapors could produce reversible corneal epithelial edema impairing vision. Skin: This compound is a skin sensitizer. Treat symptomatically as for contact dermatitis or thermal burn. Ingestion: Treat symptomatically. There is no specific antidote. Inducing vomiting is contraindicated because of the irritating nature of the compound. Inhalation: Treatment is essentially symptomatic. An individual having a dermal or pulmonary sensitization reaction to this material should be removed from further exposure to any diisocyanate.

5. Firefighting Measures

Suitable Extinguishing Media: Dry chemical, Carbon dioxide (CO₂), Foam, water spray for large fires.

Unsuitable Extinguishing Media: High volume water jet

Fire Fighting Procedure

Firefighters should wear NFPA compliant structural firefighting protective equipment, including self-contained breathing apparatus and NFPA compliant helmet, hood, boots and gloves. Avoid contact with product. Decontaminate equipment and protective clothing prior to reuse. During a fire, isocyanate vapors and other irritating, highly toxic gases may be generated by thermal decomposition or combustion.

Hazardous Decomposition Products

By Fire and High Heat: Carbon dioxide (CO₂), carbon monoxide (CO), oxides of nitrogen (NO_x), dense black smoke., Hydrogen cyanide, Isocyanate, Isocyanic Acid, Other undetermined compounds

Unusual Fire/Explosion Hazards

Closed container may forcibly rupture under extreme heat or when contents are contaminated with water (CO₂ 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. Flammable Liquid. Vapors may spread long distances and ignite. Vapors or mist may be a fire and explosion hazard when exposed to high temperature or ignition. Vapors or fumes may form explosive mixture with air.

6. Accidental Release Measures

Spill and Leak Procedures

Remove all sources of ignition, including flames, heat, and sparks. Use appropriate personal protective equipment during clean up. Dike or dam spilled material and control further spillage, if possible. Cover spill with inert material (e. g., dry sand or earth) and collect for proper disposal. Ventilate area to remove vapors or dust. Do not allow spilled material or wash water to enter sewers, surface waters, or groundwater systems.

7. Handling and Storage

Handling/Storage Precautions

Ground and bond containers and equipment before transferring to avoid static sparks. Do not breathe vapors, mists, or dusts. Use adequate ventilation to keep airborne isocyanate, blocking agent and solvent levels below the exposure limits. Wear respiratory protection if material is heated, sprayed, used in a confined space, or if any exposure limit is exceeded. Warning properties (irritation of the eyes, nose and throat or odor) are not adequate to prevent overexposure from inhalation. Offgases generated during heat curing can produce asthmatic sensitization upon either single inhalation exposure to a relatively high concentration or upon repeated inhalation exposures to lower concentrations. Individuals with lung or breathing problems or prior allergic reactions to isocyanates must not be exposed to oven offgases. Avoid contact with skin and eyes. Wear appropriate eye and skin protection. Wash thoroughly after handling. Do not breathe smoke and gases created by overheating or burning this material. Decomposition products can be highly toxic and irritating. Store in tightly closed containers to prevent moisture contamination. Do not reseal if contamination is suspected. Ground and bond containers and equipment before transferring to avoid static sparks.

Storage Period:

6 Months: after receipt of material by customer

Storage Temperature

Minimum: 0 °C (32 °F)

Maximum: 23 °C (73.4 °F)

Storage Conditions

Store separate from food products.

Employee education and training in the safe use and handling of this product are required under the OSHA Hazard Communication Standard 29 CFR 1910.1200.

Substances to Avoid

Water, Amines, Strong bases, Alcohols, Copper alloys

8. Exposure Controls/Personal Protection

The recommendations in this section should not be a substitute for a personal protective equipment (PPE) assessment performed by the employer as required by 29 CFR 1910 Subpart I.

Exposure Limits

The following exposure limits for isocyanates (where available) do not apply to the product in its supplied form; however, when the product is heated (i.e, during processing or thermal decomposition conditions), there is a potential for the release of isocyanate vapors.

n-Butyl Acetate (123-86-4)

US. ACGIH Threshold Limit Values, as amended
Time weighted average 50 ppm

US. ACGIH Threshold Limit Values, as amended
Short term exposure limit 150 ppm

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
Permissible exposure limit 150 ppm, 710 mg/m³

Isobutanol (78-83-1)

US. ACGIH Threshold Limit Values, as amended
Time weighted average 50 ppm

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
Permissible exposure limit 100 ppm, 300 mg/m³

Xylene (1330-20-7)

US. ACGIH Threshold Limit Values, as amended
Time weighted average 100 ppm

US. ACGIH Threshold Limit Values, as amended
Short term exposure limit 150 ppm

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
Permissible exposure limit 100 ppm, 435 mg/m³

US. ACGIH Threshold Limit Values, as amended
Hazard Designation: Group A4 Not classifiable as a human carcinogen.

4,4'-Diphenylmethane Diisocyanate (MDI) (101-68-8)

US. ACGIH Threshold Limit Values, as amended
Time weighted average 0.005 ppm

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
Ceiling Limit Value 0.02 ppm, 0.2 mg/m³

Petroleum Solvent (64742-95-6)

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
Permissible exposure limit 100 ppm, 400 mg/m³

Any component which is listed in section 3 and is not listed in this section does not have a known ACGIH TLV, OSHA PEL or supplier recommended occupational exposure limit.

Industrial Hygiene/Ventilation Measures

During the unblocking process for this product isocyanate and blocking agent exposure levels should be monitored. Good industrial hygiene practice dictates that worker protection should be achieved through engineering controls, such as ventilation, whenever feasible. When such controls are not feasible to achieve full protection, the use of respirators and other personal protective equipment is mandated. Exhaust air may need to be cleaned by scrubbers or filters to reduce environmental contamination. Curing ovens must be ventilated to prevent emissions into the workplace. If oven offgases are not vented properly (i.e. they are released into the work area), it is possible to be exposed to airborne monomeric diisocyanate and blocking agent.

Respiratory Protection

At normal room temperatures airborne solvent concentrations can exceed the ACGIH TLV-TWA: therefore, in inadequately ventilated environments and spray applications respiratory protection must be worn. The type of respiratory protection selected must comply with the requirements set forth in OSHA's Respiratory Protection Standard (29 CFR 1910.134). The type of respiratory protection available includes (1) an atmosphere-supplying respirator such as a self-contained breathing apparatus (SCBA) or a supplied

air respirator (SAR) in the positive pressure or continuous flow mode, or (2) an air-purifying respirator (APR). If an APR is selected then a change out schedule, based on objective information or data that will ensure that the cartridges are changed out before the end of their service life, must be developed and implemented. The basis for the change out schedule must be described in the written respirator program. Further, if an APR is selected, the airborne solvent concentration must be no greater than 10 times the TLV or PEL. An organic vapor (OV) cartridge is recommended for APR use in non-spray situations. For spray applications, a combination particulate/organic vapor (P95/OV) cartridge is recommended. If exposure to oven off-gases is expected, use of a positive pressure or continuous flow SAR is recommended.

Hand Protection

Ensure gloves remain in good condition during use and replace if any deterioration is observed.

Gloves should be worn. For protection from isocyanates, nitrile rubber, butyl rubber, or neoprene gloves are recommended. For protection from solvents in this product, nitrile rubber gloves may be appropriate, but a personal protective equipment (PPE) assessment should be performed by the employer.

Eye Protection

When handling liquid product, chemical goggles should be worn., Chemical safety goggles in combination with a full face shield if a splash hazard exists.

Skin Protection

Avoid all skin contact. Depending on the conditions of use, cover as much of the exposed skin area as possible with appropriate clothing to prevent skin contact., Gloves, long sleeved shirts and pants.

Medical Surveillance

All applicants who are assigned to an isocyanate work area should undergo a pre-placement medical evaluation. A history of eczema or respiratory allergies such as hay fever, are possible reasons for medical exclusion from isocyanate areas. Applicants who have a history of adult asthma should be restricted from work with isocyanates. Applicants with a history of prior isocyanate sensitization should be excluded from further work with isocyanates. A comprehensive annual medical surveillance program should be instituted for all employees who are potentially exposed to diisocyanates. Once a worker has been diagnosed as sensitized to any isocyanate, no further exposure can be permitted. Refer to the Covestro pamphlet (Medical Surveillance Program for Isocyanate Workers) for additional guidance.

Additional Protective Measures

Emergency showers and eye wash stations should be available. Educate and train employees in the safe use and handling of this product. Follow all label instructions.

9. Physical and Chemical Properties

State of Matter:	liquid
Color:	Yellow
Odor:	solvent-like
Odor Threshold:	No Data Available
pH:	No Data Available
Boiling Point:	ca. 115 °C (239 °F)
Flash Point:	ca. 25 °C (77 °F) (DIN 53213)
Evaporation Rate:	No Data Available
Lower Explosion Limit:	1.7 %(V) for the solvent
Upper Explosion Limit:	8.3 %(V) for the solvent
Vapor Pressure:	72 hPa @ 50 °C (122 °F)
Vapor Density:	No Data Available
Density:	ca. 1.1 g/cm ³ @ 20 °C (68 °F) (DIN EN ISO 2811)

Material Name: DESMOTHERM® 2170

Material Number: 00835242

Relative Vapor Density:	No Data Available
Specific Gravity:	Approximately 1.07
Solubility in Water:	insoluble
Partition Coefficient: n-octanol/water:	No Data Available
Auto-ignition Temperature:	ca. 435 °C (815 °F)
Decomposition Temperature:	No Data Available
Unblocking Temperature:	ca. 130 °C (266 °F)
Dynamic Viscosity:	ca. 2,000 mPa.s @ 23 °C (73.4 °F) (DIN EN ISO 3219/A.3)
Kinematic Viscosity:	No Data Available
Bulk Density:	1,065.26 kg/m ³
Pour point:	ca. -39 °C (-38.2 °F)
Self Ignition:	not applicable

10. Stability and Reactivity

Stability

Stable under normal conditions.

Materials to Avoid

Water, Amines, Strong bases, Alcohols, Copper alloys

Conditions to Avoid

Avoid elevated temperatures to prevent unintentional unblocking. Heat, flames and sparks.

Hazardous Decomposition Products

By Fire and High Heat: Carbon dioxide (CO₂), carbon monoxide (CO), oxides of nitrogen (NO_x), dense black smoke., Hydrogen cyanide, Isocyanate, Isocyanic Acid, Other undetermined compounds

11. Toxicological Information

Likely Routes of Exposure:

Skin Contact
Inhalation
Eye Contact

Health Effects and Symptoms

Acute: This product contains a blocked polyisocyanate which is considered essentially unreactive at room temperature even though it may contain a small amount of excess blocking agent. Generation of free diisocyanate and blocking agent vapors are expected in the oven during curing or during any accidental heating of this product above its unblocking temperature. The health effects and symptoms in this section apply to the free diisocyanate and blocking agent vapors thus produced, as well as to any exposure to solvent ingredients, if included in this product., Isocyanate vapors or mist at concentrations above the exposure limits or guidelines can irritate (burning sensation) the mucous membranes in the respiratory tract (nose, throat, lungs) with symptoms of runny nose, sore throat, coughing, chest discomfort, shortness of breath and reduced lung function (breathing difficulty). Persons with a preexisting, nonspecific bronchial hyperreactivity can respond to concentrations below the exposure limits or guidelines with similar symptoms as well as asthma attack or asthma-like symptoms. Exposure well above the exposure limits or guidelines may lead to bronchitis, bronchial spasm and pulmonary edema (fluid in lungs). Chemical or hypersensitivity pneumonitis, with flu-like symptoms (e.g. fever, chills), has also been reported. These symptoms can be delayed up to several hours after exposure. These effects are usually reversible.

Causes skin irritation with symptoms of reddening, itching, and swelling. Can cause sensitization. Persons previously sensitized can experience allergic skin reaction with symptoms of reddening, itching,

swelling, and rash. Cured material is difficult to remove.

Causes serious eye damage with symptoms of eye burns, corneal injury, and possible blindness. Vapor or aerosol may cause irritation with symptoms of burning and tearing.

May cause irritation of the digestive tract; Symptoms may include abdominal pain, nausea, vomiting, and diarrhea.

,Inhalation of the solvents may cause central nervous system depression with symptoms of nausea, lightheadedness, drowsiness, dizziness and loss of co-ordination.

Chronic: As a result of previous repeated overexposures or a single large dose, certain individuals may develop sensitization to isocyanates (asthma or asthma-like symptoms) that may cause them to react to a later exposure to isocyanates at levels well below the exposure limits or guidelines. These symptoms, which can include chest tightness, wheezing, cough, shortness of breath or asthmatic attack, could be immediate or delayed up to several hours after exposure. Extreme asthmatic reactions can be life threatening. Similar to many non-specific asthmatic responses, there are reports that once sensitized an individual can experience these symptoms upon exposure to dust, cold air, or other irritants. This increased lung sensitivity can persist for weeks and in severe cases for several years. Sensitization can be permanent.

Prolonged contact with skin can cause reddening, swelling, rash, and, in some cases, skin sensitization. Animal tests and other research indicate that skin contact with isocyanates can play a role in causing isocyanate sensitization and respiratory reaction. This data reinforces the need to prevent direct skin contact with isocyanates.

Prolonged vapor contact with the eyes may cause conjunctivitis.

,Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling solvents may be harmful or fatal.

Delayed: Symptoms affecting the respiratory tract can also occur several hours after overexposure.

Toxicity Data for: DESMOTHERM® 2170

Please find the data available for the components.

Acute Oral Toxicity

Acute toxicity estimate: > 5,000 mg/kg (Calculation method)

Acute Inhalation Toxicity

Acute toxicity estimate: 2.2 mg/l, 4 h, dust/mist (Calculation method)

Acute Dermal Toxicity

Acute toxicity estimate: > 5,000 mg/kg (Calculation method)

Toxicity Data for: Diethyl Malonate Blocked Prepolymer based on MDI - Resin

Toxicity Note

Data is based on a similar product.

Acute Oral Toxicity

LD50: > 5,000 mg/kg (rat)

Acute Inhalation Toxicity

LC50: 0.368 mg/l, 4 h, dust/mist (rat, male) (OECD Test Guideline 403)

The test atmosphere generated in the animal study is not representative of workplace environments, how the substance is placed on the market, and how it can reasonably be expected to be used. Therefore the test

result cannot be directly applied for the purpose of assessing hazard. Based on expert judgment and the weight of the evidence, a modified classification for acute inhalation toxicity is justified.

Acute Dermal Toxicity

LD50: > 9,400 mg/kg (rabbit, male/female) (OECD Test Guideline 402)

Skin Irritation

rabbit, OECD Test Guideline 404, slight irritant

Toxicological tests carried out on another from supplied

Eye Irritation

rabbit, OECD Test Guideline 405, slight irritant

Toxicological tests carried out on another from supplied

Sensitization

Skin sensitization (local lymph node assay (LLNA)):: Did not cause sensitization on laboratory animals. (Mouse, OECD Test Guideline 429)

Toxicological studies of a comparable product.

Mutagenicity

Genetic Toxicity in Vitro:

Salmonella/microsome test (Ames test): No indication of mutagenic effects.

Toxicological studies of a comparable product.

Toxicity Data for: n-Butyl Acetate

Acute Oral Toxicity

LD50: 12,789 mg/kg (rat, male) (OECD Test Guideline 423)

LD50: 10,760 mg/kg (rat, female) (OECD Test Guideline 423)

Acute Inhalation Toxicity

LC50: > 21 mg/l, 4 h, vapour (rat) (OECD Test Guideline 403)

Acute Dermal Toxicity

LD50: 14,112 mg/kg (rabbit, male/female) (OECD Test Guideline 402)

assuming density = 0.882 g/cm³

Skin Irritation

Human experience, Non-irritating

Eye Irritation

rabbit, OECD Test Guideline 405, slight irritant

Sensitization

dermal: non-sensitizer (Guinea pig, Maximization Test)

dermal: non-sensitizer (Human, Magnusson/Kligmann (Maximization Test))

Repeated Dose Toxicity

13 Weeks, inhalation: NOAEL: 500 ppm, (Rat,)

Chronic exposure damages the brain and the central nervous system.

13 weeks, inhalation (vapour): NOAEL: 500, (rat, male/female, 6 hours a day, 5 days a week)

Mutagenicity

Genetic Toxicity in Vitro:

Ames: negative (Salmonella typhimurium, Metabolic Activation: with/without)

Cytogenetic assay: negative (other mammalian cell line, Metabolic Activation: without)

Chromosome aberration test: negative (Chinese hamster lung cells, Metabolic Activation: without)

Genetic Toxicity in Vivo:

In vivo micronucleus test: negative (Mouse, male/female, Oral)

Studies of a comparable product.

negative

Toxicity to Reproduction/Fertility

Two-generation study, Inhalative, daily, (rat, male/female) NOAEL (parental): 750 ppm, NOAEL (F1): 750 ppm, NOAEL (F2): 750 ppm

Developmental Toxicity/Teratogenicity

Rat, Female, inhalation, gestation days 1-16, 7 hrs/day, NOAEL (teratogenicity): 1,500 ppm, No

Teratogenic effects observed at doses tested. rabbit, female, inhalation, gestation days 1-19, 7 hrs/day,

NOAEL (teratogenicity): 1500 ppm, No Teratogenic effects observed at doses tested. Rat, Female,

inhalation, 7 hrs/day, NOAEL (teratogenicity): 1,500 ppm, NOAEL (maternal): 1500 ppm

Other Relevant Toxicity Information

May cause drowsiness or dizziness.

Toxicity Data for: Petroleum Solvent**Acute Oral Toxicity**

LD50: > 5,000 mg/kg (rat, male/female) (OECD Test Guideline 401)

Acute Dermal Toxicity

LD50: > 2,000 mg/kg (rabbit, male/female) (OECD Test Guideline 402)

Skin Irritation

rabbit, Draize, Exposure Time: 24 h, Slightly irritating

Eye Irritation

rabbit, Draize, Exposure Time: 24 h, Slightly irritating

Non-irritating

Sensitization

dermal: non-sensitizer (Guinea pig, Maximization Test)

dermal: non-sensitizer (Human, Other method)

Repeated Dose Toxicity

90 D, Inhalation: NOAEL: 6.6 mg/l, (rat)

Chronic exposure damages the brain and the central nervous system.

14 D, dermal: NOAEL: 3,750 mg/kg, (rabbit)

Chronic exposure damages the brain and the central nervous system.

Mutagenicity

Genetic Toxicity in Vitro:

Ames: negative (Salmonella typhimurium, Metabolic Activation: with/without)

Carcinogenicity

Mouse, male, dermal, 2 Ynegative rat, Male/Female, inhalation, 109 w, 6 hrs/day 7 days/week positive
Kidney carcinomas were found in male rats only at all dose levels.

Toxicity to Reproduction/Fertility

Two generation study, inhalation, 6 hrs/day 7 days/week, (rat, Male/Female) NOAEL (F1): 500 ppm,
NOAEL (F2): 500 ppm No effects on Reproductive parameters observed at doses tested. Three generation
study, inhalation, 6 hrs/day 7 days/week, (rat, Male/Female) No effects on Reproductive parameters
observed at doses tested.

Developmental Toxicity/Teratogenicity

rat, female, inhalation, NOAEL (teratogenicity): > 1,573 ppm, No Teratogenic effects observed at doses
tested. Rat, Female, inhalation, GD6-GD19, 6 hours/day, NOAEL (teratogenicity): 23.9 mg/l, NOAEL
(maternal): 23.9 mg/l,

Other Relevant Toxicity Information

May cause drowsiness or dizziness.

Toxicity Data for: Isobutanol**Acute Oral Toxicity**

LD50: 2,860 mg/kg (rat, male) (OECD Test Guideline 423)

LD50: 3,350 mg/kg (rat, female) (OECD Test Guideline 423)

Acute Inhalation Toxicity

LC50: > 27.27 mg/l, 4 h, vapour (rat, male/female)
4 hour test is calculated.

Acute Dermal Toxicity

LD50: > 2,000 mg/kg (rabbit, male) (OECD Test Guideline 402)

LD50: 2,460 mg/kg (rabbit, female) (OECD Test Guideline 402)

Skin Irritation

Human, Slightly irritating

Eye Irritation

rabbit, OECD Test Guideline 405, severe irritant

Sensitization

Maximisation Test: negative (Guinea pig)
Studies of a comparable product.

Repeated Dose Toxicity

4 months, Inhalation: NOAEL: 0.0001 mg/l, (Rat, male, daily)

Chronic exposure damages the brain and the central nervous system.

Oral: NOAEL: > 1,450 mg/kg, (rat, male/female, daily)

inhalation (vapour): NOAEL: > 7.5 mg/kg, (rat, male/female, 6 hours a day, 5 days a week)

Mutagenicity

Genetic Toxicity in Vitro:

Bacterial - gene mutation assay: Negative results were reported in various in vitro studies. (E. coli,

Metabolic Activation: with/without)

Micronucleus test: Negative results were reported in various in vitro studies. (Chinese hamster fibroblasts, Metabolic Activation: without)

Ames: Negative results were reported in various in vitro studies. (Salmonella typhimurium, Metabolic Activation: with/without)

Mammalian cell - gene mutation assay: Negative results were reported in various in vitro studies. (Chinese hamster fibroblasts, Metabolic Activation: with/without)

Genetic Toxicity in Vivo:

Cytogenetic assay: negative (Rat, male, oral)

negative

In vivo micronucleus test: negative (Mouse, male/female, Oral)

negative

Carcinogenicity

Rat, oral, lifetime, daily positive

Toxicity to Reproduction/Fertility

Other method, inhalation, (Rat, Male) No effects on Reproductive parameters observed at doses tested.

Developmental Toxicity/Teratogenicity

Rat, female, inhalation, gestation, daily, NOAEL (teratogenicity): 10 mg/kg, NOAEL (maternal): 10 mg/kg, No Teratogenic effects observed at doses tested. rabbit, Female, inhalation, gestation, daily, NOAEL (teratogenicity): 10 mg/kg, NOAEL (maternal): 2.51 mg/kg, No fetotoxicity observed at doses tested. Rat, female, inhalation, gestation, 6 hours/day, NOAEL (teratogenicity): 10 mg/l, NOAEL (maternal): 10 mg/l,

Other Relevant Toxicity Information

May cause drowsiness or dizziness.

May cause irritation of respiratory tract.

Toxicity Data for: 1,2,4-Trimethylbenzene

Acute Oral Toxicity

LD50: > 5,000 mg/kg (rat)

Acute Inhalation Toxicity

LC50: 18 mg/l, 18,000, 4 h, vapour (rat)

Acute Dermal Toxicity

LD50: > 3,160 mg/kg (rabbit)

Skin Irritation

rabbit, Moderately irritating

Eye Irritation

rat, Slightly irritating

Sensitization

dermal: non-sensitizer (Guinea pig, Maximization Test)

Skin sensitisation according to Magnusson/Kligmann (maximizing test):: negative (Guinea pig)

Repeated Dose Toxicity

20 Days, inhalation: NOAEL: < 100 ppm, (rat,)

CNS depression.

28 Days, oral: NOAEL: < 500 mg/kg, (rat,)

Changes in: kidney

3 months, inhalation: NOAEL: 1230 mg/m³, (rat, male/female, 6 hrs/day 5 days/week)

Mutagenicity

Genetic Toxicity in Vitro:

Ames: negative (Salmonella typhimurium, Metabolic Activation: with/without)

Genetic Toxicity in Vivo:

Sister Chromatid Exchange: (Mouse,)

Positive and negative results were seen in various in vivo studies.

Cytogenetic assay: (Rat,)

negative

Micronucleus Assay: negative (Mouse, Male/Female, intraperitoneal)

negative

Developmental Toxicity/Teratogenicity

rat, female, inhalation, daily, NOAEL (teratogenicity): 0.19%, No Teratogenic effects observed at doses tested.

No fetotoxicity observed at doses tested.

Other Relevant Toxicity Information

May cause irritation of respiratory tract.

May be fatal if swallowed and enters airways.

Toxicity Data for: Diethylmalonate

Acute Oral Toxicity

LD50: 15,794 mg/kg (rat)

Acute Dermal Toxicity

LD50: > 16,800 mg/kg (rabbit)

Skin Irritation

Draize, Mild skin irritation

Eye Irritation

rabbit, Moderately irritating

Sensitization

Skin sensitisation:: negative (Maximisation Test)

Repeated Dose Toxicity

90 Days, oral: NOAEL: 35.9 - 41.1 mg/kg, (Rat)

There were no adverse effects seen at highest dose tested.

Mutagenicity

Genetic Toxicity in Vitro:

Ames: negative (Salmonella typhimurium, Metabolic Activation: with/without)

Toxicity Data for: 1,3,5-Trimethylbenzene

Acute Oral Toxicity

LD50: 6,000 mg/kg (rat)

Acute Inhalation Toxicity

LC50: 24 mg/l, 24,000, 4 h, vapour (rat)

Acute Dermal Toxicity

LD50: > 2,000 mg/kg (rat, male/female)

Skin Irritation

rabbit, Draize Test, Exposure Time: 24 h, Moderately irritating

Eye Irritation

rabbit, Draize, Mild eye irritation

Repeated Dose Toxicity

4 months, inhalation: NOAEL: < 1700 ppm, (Rat,)

Reduced body weight gain.Changes in blood parameters.CNS depression.

90 Days, oral: LOAEL: 54 gm/kg, (rat,)

Changes in:liver

90 Days, oral: NOAEL: 600 mg/kg, (rat,)

Mutagenicity

Genetic Toxicity in Vitro:

Ames: negative (Salmonella typhimurium, Metabolic Activation: with/without)

Genetic Toxicity in Vivo:

Micronucleus Assay: negative (Mouse, Male/Female, intraperitoneal)

negative

Developmental Toxicity/Teratogenicity

6 hours/day, daily, NOAEL (teratogenicity): 5900 mg/m3, NOAEL (maternal): 492 mg/m3

Other Relevant Toxicity Information

May cause irritation of respiratory tract.

Toxicity Data for: N-Propylbenzene

Acute Oral Toxicity

LD50: 6,040 mg/kg (rat)

Acute Inhalation Toxicity

LC50: 159.76 mg/l, 65,000 ppm, 4 h, vapour (rat)

4 hour test is calculated.

Eye Irritation

irritating

Other Relevant Toxicity Information

May cause irritation of respiratory tract.

May be fatal if swallowed and enters airways.

Toxicity Data for: Xylene

Acute Oral Toxicity

LD50: 3,523 mg/kg (rat, male) (Directive 67/548/EEC, Annex V, B.1.)

Acute Inhalation Toxicity

LC50: 6,700 ppm, 4 h, gas (rat, male)

Acute Dermal Toxicity

LD50: 1,700 mg/kg (rabbit)

Skin Irritation

rabbit, Exposure Time: 24 h, irritating

Eye Irritation

rabbit, irritating

Sensitization

Skin sensitization (local lymph node assay (LLNA)):: negative (Mouse, OECD Test Guideline 429)

Repeated Dose Toxicity

Oral: LOAEL: 150 mg/kg, (rat, male/female)

Mutagenicity

Genetic Toxicity in Vitro:

Ames test: negative (Salmonella typhimurium, Metabolic Activation: with/without)

Chromosome aberration test in vitro: negative (Chinese hamster ovary (CHO) cells, Metabolic Activation: with/without)

In vitro mammalian cell gene mutation test: negative (Mouse lymphoma cells, Metabolic Activation: with/without)

Genetic Toxicity in Vivo:

In vivo micronucleus test: negative (Mouse, male, intraperitoneal)
negative

Carcinogenicity

Mouse, male/female, Oral, 103, 5 times/week Animal testing did not show any carcinogenic effects.

Toxicity to Reproduction/Fertility

Two-generation study, Inhalative, (rat, male/female) NOAEL (parental): > 500, NOAEL (F1): > 500, NOAEL (F2): > 500 No toxicity to reproduction

Developmental Toxicity/Teratogenicity

rat, female, Inhalative, 6 hours/day 7 days/week, NOAEL (teratogenicity): > 2000, NOAEL (maternal): 500

Other Relevant Toxicity Information

May cause drowsiness or dizziness if inhaled.

May cause irritation of respiratory tract.

Carcinogenicity:

No carcinogenic substances as defined by IARC, NTP and/or OSHA

12. Ecological Information

Ecological Data for: DESMOTHERM® 2170

Data on the product is not available. Please find the data available for the components.

Ecological Data for Diethyl Malonate Blocked Prepolymer based on MDI - Resin

Biodegradation

i.e. not readily degradable

Additional Ecotoxicological Remarks

Data is based on a similar product.

Ecological Data for n-Butyl Acetate

Biodegradation

aerobic, 98 %, Exposure time: 28 Days

Biochemical Oxygen Demand (BOD)

1,020 mg/g

Chemical Oxygen Demand (COD)

2,320 mg/g

Theoretical Biological Oxygen Demand (ThBOD)

2,207 mg/g

Bioaccumulation

ca. 4 - 14 BCF

Acute and Prolonged Toxicity to Fish

LC50: 18 mg/l (Fathead minnow (*Pimephales promelas*), 96 h)

LC50: 185 mg/l (Silverside Minnow (*Menidia peninsulae*), 96 h)

Acute Toxicity to Aquatic Invertebrates

EC50: 72.8 mg/l (Water flea (*Daphnia magna*), 48 h)

EC50: 32 mg/l (brine shrimp (*Artemia salina*), 48 h)

Toxicity to Aquatic Plants

EC50: 670 mg/l, End Point: growth (*Cryptomonas* (*Chilomonas* *paramecium*), 48 h)

674.7 mg/l, End Point: growth (Green algae (*Scenedesmus subspicatus*), 72 h)

Toxicity to Microorganisms

EC50: 959 mg/l, (*Pseudomonas putida*, 18 h)

Ecological Data for Petroleum Solvent

Biochemical Oxygen Demand (BOD)

5 Days, 190 mg/l

Chemical Oxygen Demand (COD)

440 mg/g

Acute and Prolonged Toxicity to Fish

LC50: 320 - 435 mg/l (Golden orfe (*Leuciscus idus*), 48 h)

Material Name: DESMOTHERM® 2170

Material Number: 00835242

LC50: 9.22 mg/l (Rainbow (Donaldson) Trout (*Oncorhynchus mykiss*), 96 h)

Acute Toxicity to Aquatic Invertebrates

EC50: 170 mg/l (Water flea (*Daphnia magna*), 24 h)

EC50: 226 mg/l (Water flea (*Daphnia magna*), 24 h)

Toxicity to Aquatic Plants

EC50: 56 mg/l, (Green algae (*Selenastrum capricornutum*), 72 h)

EC50: 19 mg/l, (Green algae (*Selenastrum capricornutum*), 72 h)

Toxicity Other Non-Mammal Terrestrial Species

> 2,250 mg/kg, (Bobwhite quail)

Ecological Data for Isobutanol

Biodegradation

Aerobic, 99 %, Exposure time: 14 Days

Bioaccumulation

ca. 3 BCF

Acute and Prolonged Toxicity to Fish

LC50: 1,820 - 2,280 mg/l (Goldfish (*Carassius auratus*), 96 h)

LC50: 1,480 - 1,730 mg/l (Bluegill (*Lepomis macrochirus*), 96 h)

LC50: 1,370 - 3,630 mg/l (Fathead minnow (*Pimephales promelas*), 96 h)

LC50: 1,000 - 3,000 mg/l (Bleak (*Alburnus alburnus*), 96 h)

Acute Toxicity to Aquatic Invertebrates

EC50: 1,030 - 1,439 mg/l (Water flea (*Daphnia magna*), 48 h)

Toxicity to Aquatic Plants

EC50: 1,250 mg/l, End Point: biomass (Green algae (*Scenedesmus subspicatus*), 48 h)

Toxicity to Microorganisms

EC50: 1,224 mg/l, (*Photobacterium phosphoreum*, 15 min)

EC10: 750 mg/l, (*Pseudomonas putida*, 16 h)

Ecological Data for 1,2,4-Trimethylbenzene

Biodegradation

4 %, Exposure time: 28 d, i.e. not readily degradable

Biochemical Oxygen Demand (BOD)

ca. 190 mg/l

Chemical Oxygen Demand (COD)

ca. 440 mg/g

Bioaccumulation

Cyprinus carpio (Carp), 31 - 207 BCF

Acute and Prolonged Toxicity to Fish

LC50: 7.72 mg/l (Fathead minnow (*Pimephales promelas*), 96 h)

Acute Toxicity to Aquatic Invertebrates

EC50: 3.6 mg/l (Water flea (*Daphnia magna*), 48 h)

Toxicity to Microorganisms

EC0: < 500 mg/l, (activated sludge, 24 h)

Ecological Data for Diethylmalonate**Biodegradation**

Aerobic, 98 %, Exposure time: 28 Days

Readily biodegradable.

Acute and Prolonged Toxicity to Fish

LC50: 73 mg/l (Golden orfe (*Leuciscus idus*), 48 h)

Acute Toxicity to Aquatic Invertebrates

EC50: 202.3 mg/l (Water flea (*Daphnia magna*), 48 h)

Toxicity to Aquatic Plants

EC50: 508.2 mg/l, End Point: growth (Green algae (*Scenedesmus subspicatus*), 72 h)

Toxicity to Microorganisms

EC50: 3,097 mg/l, (*Pseudomonas putida*, 16 h)

Ecological Data for 1,3,5-Trimethylbenzene**Biodegradation**

0 %, Exposure time: 14 Days

Bioaccumulation

Cyprinus carpio (Carp), 23 - 342 BCF

Acute and Prolonged Toxicity to Fish

LC50: 13 ppm (Goldfish (*Carassius auratus*), 96 h)

LC50: 8.6 mg/l (Killifish (*Oryzias latipes*), 48 h)

Acute Toxicity to Aquatic Invertebrates

EC50: 50 mg/l (Water flea (*Daphnia magna*), 24 h)

Toxicity to Aquatic Plants

EC50: 25 - 53 mg/l, End Point: growth (Green algae (*Scenedesmus subspicatus*), 48 h)

Ecological Data for N-Propylbenzene**Biodegradation**

i.e. readily biodegradable

Biochemical Oxygen Demand (BOD)

8 Days, 38 %

Theoretical Biological Oxygen Demand (ThBOD)

21.8 - 43.7 %

Bioaccumulation

ca. 38 - 304 BCF

Ecological Data for Xylene

Biodegradation

> 60 %, Exposure time: 28 d, i.e. readily biodegradable

Biochemical Oxygen Demand (BOD)

5 Days, 80 %

Chemical Oxygen Demand (COD)

83 mg/g

Acute and Prolonged Toxicity to Fish

LC50: 13.5 - 17.3 mg/l (Rainbow (Donaldson) Trout (*Oncorhynchus mykiss*), 96 h)

Acute Toxicity to Aquatic Invertebrates

600 ug/L (*Gammarus* sp., 48 h)

Toxicity to Aquatic Plants

EC50: 10 mg/l, End Point: growth (other: algae, 72 h)

Toxicity to Microorganisms

EC50: 96 mg/l, (Bacteria, 24 h)

Studies of a comparable product.

13. Disposal Considerations

Waste Disposal Method

Waste disposal should be in accordance with existing federal, state and local environmental control laws. The Covestro preferred method for disposal of unused product is incineration. Contact and follow the guidance of a licensed disposal facility to properly dispose of unused product or chemical waste.

Empty Container Precautions

Containers that are empty as defined by RCRA (40 CFR part 261.7), may retain product residue; observe all precautions for product. Do not grind, torch cut, weld or heat an empty container that once held an isocyanate-containing product; highly toxic vapors or gases are formed.

Drums

One method for disposing of empty drums is to contract with an approved drum re-conditioner. A state by state listing of drum re-conditioners can be obtained from the Reusable Industrial Packaging Association (RIPA) at www.reusablepackaging.org.

If not sent to a re-conditioner, it is important that the company contacted to dispose of the drums be notified of the hazards associated with the isocyanate-containing product. Metal recycling firms may require that the drum be thoroughly decontaminated with a neutralizing agent prior to disposal. Contact Covestro LLC for the proper procedure to neutralize and remove product residue from the drum. If not recycled, empty drums should be crushed by mechanical means, such that reuse is impossible. Consult federal, state and local regulations, as well as a licensed waste disposal facility to determine proper disposition of crushed drums.

Bulk Containers

Some Covestro products are shipped in portable tanks referred to as Monotainers®. Covestro LLC owns these Monotainers® and assists the customer in their return to Covestro LLC when empty. Other Covestro products may be shipped in composite intermediate bulk containers, commonly referred to as totes. These containers are returned to the tote manufacturer, not Covestro, when empty. Instructions on returning these containers when empty are provided with each container.

Flexible intermediate bulk containers, commonly referred to as supersacks, should be shredded when empty in such a way that reuse is impossible.

Other Containers

For all other packaging (e.g., aluminum bullet sample containers, and 1- and 5-gallon pails), these containers are non-returnable and should not be reused for any other purpose. Remove any remaining product and store in an appropriate waste container for proper disposal. Consult federal, state and local regulations, as well as a licensed waste disposal facility to determine proper disposition of these empty containers.

14. Transportation Information

Land transport (DOT)

Proper Shipping Name: Resin solution (contains N-Butyl Acetate, Solvent Naphtha, Isobutanol)
Hazard Class or Division: 3
UN/NA Number: UN1866
Packaging Group: III
Hazard Label(s): FLAMMABLE LIQUID

RSPA/DOT Regulated Components:

n-Butyl Acetate
N-Propylbenzene
Xylene

Reportable Quantity: 9450 kg (20834 lb)

Sea transport (IMDG)

Proper Shipping Name: RESIN SOLUTION (contains N-Butyl Acetate, Solvent Naphtha, Isobutanol)
Hazard Class or Division: 3
UN number: UN1866
Packaging Group: III
Hazard Label(s): FLAMMABLE LIQUIDS

Air transport (ICAO/IATA)

Proper Shipping Name: Resin solution (contains N-Butyl Acetate, Solvent Naphtha, Isobutanol)
Hazard Class or Division: 3
UN number: UN1866
Packaging Group: III
Hazard Label(s): FLAMMABLE LIQUIDS

15. Regulatory Information

United States Federal Regulations

US. Toxic Substances Control Act: Listed on the Active Portion of the TSCA Inventory.

No substances are subject to TSCA 12(b) export notification requirements.

US. EPA CERCLA Hazardous Substances (40 CFR 302) Components:

Material Name: DESMOTHERM® 2170

Material Number: 00835242

n-Butyl Acetate
Isobutanol

Reportable quantity: 5000 lbs
Reportable quantity: 5000 lbs

SARA Section 311/312 Hazard Categories:

Refer to hazard classification information in Section 2.

**US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III
Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A) Components:**

None

**US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III
Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required Components:**

1,2,4-Trimethylbenzene

**US. EPA Resource Conservation and Recovery Act (RCRA) Composite List of Hazardous Wastes
and Appendix VIII Hazardous Constituents (40 CFR 261):**

Under RCRA, it is the responsibility of the person who generates a solid waste, as defined in 40 CFR 261.2, to determine if that waste is a hazardous waste. In its purchased form, this product meets the criteria of ignitability under 40 CFR 261.21(a), and, when discarded in that form, should be managed as a hazardous waste.

State Right-To-Know Information

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections of the SDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

Massachusetts, New Jersey or Pennsylvania Right to Know Substance Lists:

<u>Concentration</u>	<u>Components</u>	<u>CAS-No.</u>
60 - 100%	Diethyl Malonate Blocked Prepolymer based on MDI - Resin	200414-59-1
10 - 30%	n-Butyl Acetate	123-86-4
3 - 7%	Petroleum Solvent	64742-95-6
3 - 7%	Isobutanol	78-83-1
3 - 7%	1,2,4-Trimethylbenzene	95-63-6
1 - 5%	Diethylmalonate	105-53-3
1 - 5%	1,3,5-Trimethylbenzene	108-67-8

**New Jersey Environmental Hazardous Substances List and/or New Jersey RTK Special Hazardous
Substances Lists:**

<u>Concentration</u>	<u>Components</u>	<u>CAS-No.</u>
10 - 30%	n-Butyl Acetate	123-86-4
3 - 7%	Isobutanol	78-83-1
3 - 7%	1,2,4-Trimethylbenzene	95-63-6
0.1 - 1%	N-Propylbenzene	103-65-1
0.1 - 1%	Xylene	1330-20-7

Pennsylvania Right to Know Special Hazard Substance List:

<u>Concentration</u>	<u>Components</u>	<u>CAS-No.</u>
<0.1%	Benzene	71-43-2

Massachusetts Right to Know Extraordinarily Hazardous Substance List:

<u>Concentration</u>	<u>Components</u>	<u>CAS-No.</u>
<0.1%	Benzene	71-43-2

California Proposition 65 List:

Material Name: DESMOTHERM® 2170

Material Number: 00835242

Concentration

<0.1%

Components

Benzene

CAS-No.

71-43-2

CFATS (Chemical Facility Anti-Terrorism Standards) Chemicals

To the best of our knowledge, this product does not contain Appendix A Chemicals of Interest (COI), at or above the Screening Threshold Quantity (STQ), as defined by the Department of Homeland Security Chemical Facility Anti-terrorism Standard (CFATS, 6 CFR Part 27).

Based on information provided by our suppliers, this product is considered "DRC Conflict Free" as defined by the SEC Conflict Minerals Final Rule (Release No. 34-67716; File No. S7-40-10; Date: 2012-08-22).

16. Other Information

The method of hazard communication for Covestro LLC is comprised of product labels and safety data sheets. Safety data sheets for all of our products and general product declarations are available for download at www.productsafetyfirst.covestro.com.

The handling of products containing reactive polyisocyanate/prepolymer and/or monomeric diisocyanate requires appropriate protective measures referred to in this SDS. These products are therefore recommended only for use in industrial or trade (commercial) applications. They are not suitable for use in Do-It-Yourself applications.

Contact: Product Safety Department
Telephone: (412) 413-2835
Version Date: 03/06/2020
SDS Version: 4.1

Information contained in this SDS is believed to be accurate but is furnished without warranty, express or implied, including warranties of merchantability or fitness for a particular purpose. The information relates only to the specific material designated herein. Covestro LLC. assumes no legal responsibility for use of or reliance upon the information in this SDS and such information shall in no case be considered a part of our terms and conditions of sale. The user is responsible for determining whether the Covestro product is suitable for user's method of use or application. Covestro is not liable for any failure to observe the precautionary measures described in this SDS or for any misuse of the product.

|| Changes since the last version are highlighted in the margin. This version replaces all previous versions.