130 E George St
Adairsville, GA 30103
678-800-7003

SAFETY DATA SHEET

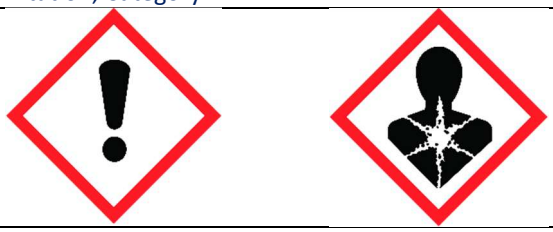
DATE ISSUED: 7/10/2023
SDS REF. NO: System 350 Component A
SDS REV NO: 3.0

BPI System 350

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT TRADE NAME:	System 350 (Component A)
PRODUCT USE:	Automotive & Industrial Coating
MANUFACTURER	Burtin Polymer Innovations 130 E George St Adairsville, GA 30103 678-800-7003
24 HR EMERGENCY TELEPHONE NUMBER	
CHEMTEC (US Transportation):	800-424-9300
CHEMTEC (International Transportation):	202-483-7616

2. HAZARDS AND IDENTIFICATION

CLASSIFICATION:	Acute toxicity - Category 4 – inhalation Skin irritation - Category 2 Respiratory sensitization - Category 1 Skin sensitization - Category 1 Carcinogenicity - Category 2 Specific target organ toxicity - single exposure - Category 3 Specific target organ toxicity - repeated exposure - Category 2 – Inhalation Eye irritation, Category 2B.
PICTOGRAMS:	
SIGNAL WORD:	Danger
HAZARD STATEMENTS:	Causes skin and eye irritation. May cause an allergic reaction. Harmful if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation. Suspected of causing cancer. May cause damage to organs (Respiratory Tract) through prolonged or repeated exposure if inhaled.
PRECAUTIONARY STATEMENTS:	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust/ fume/ gas/ mist/ vapors/ spray. Wash skin thoroughly after handling.

PRECAUTIONARY STATEMENTS (cont):	Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves/ protective clothing/ eye protection/ face protection. In case of inadequate ventilation wear respiratory protection. **IF ON SKIN:** Wash with plenty of soap and water. **IF INHALED:** Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/ physician 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 exposed or concerned: Get medical advice/ attention. If skin irritation or rash occurs: Get medical advice/ attention. If eye irritation persists: Get medical advice/ attention. Take off contaminated clothing and wash before reuse. Store in a well-ventilated place. Keep container tightly closed. Store locked up. Dispose of contents/ container to an approved waste disposal plant.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	Weight %	CAS Number
1,1'-methylenebis(4-isocyanato-benzen	70% to 75%	101-68-8 / 26447-40-5
Propylene glycol	0% to 30%	25322-69-4
Glycerol propoxylate	0% to 30%	25791-96-2
Glycerol propoxylate-b-ethoxylate	0% to 30%	9082-00-2

*Toxic chemical subject to the reporting requirements of section 313 of Title III and of 40 CFR 372.
"WARNING: THIS PRODUCT CONTAINS CHEMICALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER AND BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM."

4. FIRST AID MEASURES

EYES:	Immediately flush eyes with water; remove contact lenses, if present, after the first 5 minutes, then continue flushing eyes for at least 15 minutes. Obtain medical attention without delay, preferably from an ophthalmologist. Suitable emergency eye wash facility should be immediately available.
SKIN:	Remove material from skin immediately by washing with soap and plenty of water. Remove contaminated clothing and shoes while washing. Seek medical attention if irritation persists. Wash clothing before reuse. An MDI skin decontamination study demonstrated that cleaning very soon after exposure is important, and that a polyglycol-based skin cleanser or corn oil may be more effective than soap and water. Discard items which cannot be decontaminated, including leather articles such as shoes, belts and watchbands. Suitable emergency safety shower facility should be available in work area.
INGESTION:	If swallowed, seek medical attention. Do not induce vomiting unless directed to do so by medical personnel.
INHALATION:	Move person to fresh air. If not breathing, give artificial respiration; if by mouth-to-mouth use rescuer protection (pocket mask, etc). If breathing is difficult, oxygen should be administered by qualified personnel. Call a physician or transport to a medical facility.
	MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED **SYMPTOMS:** N/A **EFFECTS:** N/A
NOTES TO PHYSICIAN:	Maintain adequate ventilation and oxygenation of the patient. May cause respiratory sensitization or asthma-like symptoms. Bronchodilators, expectorants, and antitussives may be of help. Treat bronchospasm with inhaled beta2 agonist and oral or parenteral corticosteroids. Respiratory symptoms, including pulmonary edema, may be delayed. Persons receiving significant exposure should be observed 24-48 hours for signs of respiratory distress. If you are sensitized to diisocyanatos, consult your physician regarding working with other respiratory irritants or sensitizers.

	Cholinesterase inhibition has been noted in human exposure but is not of benefit in determining exposure and is not correlated with signs of exposure. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient. Excessive exposure may aggravate preexisting asthma and other respiratory disorders (e.g. emphysema, bronchitis, reactive airways dysfunction syndrome).

5. FIRE FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA:	Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam. Alcohol resistant foams (ATC type) are preferred. General purpose synthetic foams (including AFFF) or protein foams may function but will be less effective.
FIRE FIGHTING PROCEDURES:	Keep people away. Isolate fire and deny unnecessary entry. Stay upwind. Keep out of low areas where gases (fumes) can accumulate. Water is not recommended but may be applied in large quantities as a fine spray when other extinguishing agents are not available. Do not use direct water stream. May spread fire. Fight fire from protected location or safe distance. Consider the use of unmanned hose holders or monitor nozzles. Immediately withdraw all personnel from the area in case of rising sound from venting safety device or discoloration of the container. Move container from fire area if this is possible without hazard. Use water spray to cool fire-exposed containers and fire-affected zone until fire is out. Contain fire water run-off if possible. Fire water run-off, if not contained, may cause environmental damage. Review the "Accidental Release Measures" and the "Ecological Information" sections of this (M)SDS.
UNUSUAL FIRE AND EXPLOSION HAZARD:	Material reacts slowly with water, releasing carbon dioxide which can cause pressure buildup and rupture of closed containers. Elevated temperatures accelerate this reaction. Container may rupture from gas generation in a fire situation. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids. Dense smoke is produced when product burns.
COMBUSTION PRODUCTS:	During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Nitrogen oxides. Isocyanates. Hydrogen cyanide. Carbon monoxide. Carbon dioxide.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL:	Ventilate area. Absorb spill with absorbent material such as sawdust, vermiculite or sand, and place in an open container away from moisture or water until MDI hardens.
LARGE SPILL:	In case of large spill, dike the area to prevent this material from entering water systems or sewers. Keep away from moisture and water. For major spills call Chemtrec (800-424-9300).
ENVIRONMENTAL PRECAUTIONS	
WATER SPILL:	For major spills call Chemtrec (800-424-9300).
LAND SPILL:	Prevent from entering into soil, ditches, sewers, waterways and/or groundwater.
PERSONAL PRECAUTIONS:	Respirator, gloves, safety glasses.
EMERGENCY PRECAUTIONS:	Keep MDI away from moisture and water.
METHOD OF CLEANING UP:	Contain spilled material if possible. Absorb with materials such as: Vermiculite. Dirt. Sand. Clay. Do NOT use absorbent materials such as: Cement powder (Note: may generate heat). Collect in suitable and properly labeled open containers. Do not place in sealed containers. Suitable containers include: Metal drums. Plastic drums. Polylined fiber pacs. Wash the spill site with large quantities of water. Attempt to neutralize by adding suitable decontaminant solution: Formulation 1: sodium carbonate 5 - 10%; liquid detergent 0.2 - 2%; water to make up to 100%, OR Formulation 2: concentrated ammonia solution 3 - 8%; liquid detergent 0.2 - 2%; water to make up to 100%. If ammonia is used, use good ventilation to prevent vapor exposure. Contact your supplier for clean-up assistance.

7. HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING:	Avoid breathing vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated contact with skin. Use with adequate ventilation. Wash thoroughly after handling. Keep container tightly closed. Spills of these organic materials on hot fibrous insulations may lead to lowering of the auto ignition temperatures possibly resulting in spontaneous combustion.
CONDITIONS FOR SAFE STORAGE, INCLUDING INCOMPATIBILITIES:	Store in a dry place. Protect from atmospheric moisture. Do not store product contaminated with water to prevent potential hazardous reaction. See Section 10 for more specific information. Additional storage and handling information on this product may be obtained by calling your sales or customer service contact.

8. EXPOSURE CONTROLS\PERSONAL PROTECTION

OSHA TABLE COMMENTS: NL = Not Listed

EXPOSURE LIMITS: Exposure limits are listed below, if they exist.

Component Value/Notation	Regulation	Type of listing
1,1'-methylenebis(4-isocyanato-benzen	ACGIH	TWA
Propylene glycol	WEEL	TWA
Glycerol propoxylate	WEEL	TWA
Glycerol propoxylate-b-ethoxylate	WEEL	TWA

ENGINEERING CONTROLS:	Use only with adequate ventilation. Local exhaust ventilation may be necessary for some operations. Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines. Exhaust systems should be designed to move the air away from the source of vapor/aerosol generation and people working at this point. The odor and irritancy of this material are inadequate to warn of excessive exposure.
PERSONAL PROTECTIVE EQUIPMENT	
EYES AND FACE:	Use chemical goggles.
SKIN:	Use gloves chemically resistant to this material. Examples of preferred glove barrier materials include: Butyl rubber. Chlorinated polyethylene. Polyethylene. Ethyl vinyl alcohol laminate ("EVAL"). Examples of acceptable glove barrier materials include: Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Polyvinyl chloride ("PVC" or "vinyl"). Viton. NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.
RESPIRATORY:	Atmospheric levels should be maintained below the exposure guideline. When atmospheric levels may exceed the exposure guideline, use an approved air-purifying respirator equipped with an organic vapor sorbent and a particle filter. For situations where the atmospheric levels may exceed the level for which an air-purifying respirator is effective, use a positive-pressure air-supplying respirator (air line or self-contained breathing apparatus). For emergency response or for situations where the atmospheric level is unknown, use an approved positive-pressure self-contained breathing apparatus or positive-pressure air line with auxiliary self contained air supply. The following should be effective types of air-purifying respirators: Organic vapor cartridge with a particulate pre-filter.
WORK HYGIENIC PRACTICES:	Use good personal hygiene practices. Wash hands before eating, drinking, smoking, or using toilet facilities. Promptly remove soiled clothing and wash thoroughly before reuse. Shower after work, using plenty of soap and water. Open containers of food and beverages should be kept away from areas where the product is used or stored. Eating, drinking, smoking and application of cosmetics should be prohibited in areas where the product is being used.
OTHER USE PRECAUTIONS:	Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task.
COMMENTS:	N/A

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE:	Liquid.
COLOR:	Yellow.
ODOUR:	Fruity.
ODOUR THRESHOLD:	0.4 ppm Based on Literature for MDI. Odor is inadequate warning of excessive exposure.
pH:	N/A
MELTING POINT:	N/A
BOILING POINT:	314 °C (597 °F) Decomposes before boiling
FLASH POINT AND METHOD:	> 177 °C (> 351 °F) closed cup ASTM D 93
EVAPORATION RATE:	N/A
FLAMMABILITY(Solid/Gas):	N/A
FLAMMABLE LIMITS:	N/A TO N/A
VAPOUR PRESSURE:	0.0059 Pa at 20 °C (68 °F) Estimated.
VAPOUR DENSITY:	8.5
SPECIFIC GRAVITY:	N/A1.22 at 20 °C (68 °F) / 20 °C EC Method A3
% SOLUBILITY IN WATER:	insoluble, reacts, evolution of CO2
OCTANOL/WATER PARTITION COEFFICIENT:	N/A
AUTO-IGNITION TEMPERATURE:	None by test
DECOMPOSITION TEMPERATURE:	N/A
POUR POINT:	N/A
MOLECULAR FORMULA:	
% VOLATILE:	N/A
VISCOSITY:	N/A
MOLECULAR WEIGHT:	

10. STABILITY AND REACTIVITY

STABLE:	Stable under recommended storage conditions.
HAZARDOUS POLYMERIZATION:	Can occur. Exposure to elevated temperatures can cause product to decompose and generate gas. This can cause pressure build-up and/or rupturing of closed containers. Polymerization can be catalyzed by: Strong bases. Water.
CONDITIONS TO AVOID:	Exposure to elevated temperatures can cause product to decompose. Generation of gas during decomposition can cause pressure in closed systems. Pressure build-up can be rapid. Avoid moisture. Material reacts slowly with water, releasing carbon dioxide which can cause pressure buildup and rupture of closed containers. Elevated temperatures accelerate this reaction.
STABILITY:	Diisocyanates react with many materials and the rate of reaction increases with temperature as well as increased contact; these reactions can become violent. Contact is increased by stirring or if the other material mixes with the diisocyanate. Contact is increased by stirring or if the other material acts as a solvent. Products based on diisocyanates such as TDI and MDI are not soluble in water and will sink to the bottom, but react slowly at the interface. Reaction with water will generate carbon dioxide and heat.
POLYMERIZATION:	N/A
HAZARDOUS DECOMPOSITION PRODUCTS:	Decomposition products depend upon temperature, air supply and the presence of other materials. Gases are released during decomposition.
INCOMPATIBLE MATERIALS:	Avoid contact with: Acids. Alcohols. Amines. Water. Ammonia. Bases. Metal compounds. Moist air. Strong oxidizers. Diisocyanates react with many materials and the rate of reaction increases with temperature as well as increased contact; these reactions can become violent. Contact is increased by stirring or if the other material mixes with the diisocyanate. Diisocyanates are not soluble in water and sink to the bottom, but react slowly at the interface. The reaction forms

INCOMPATIBLE MATERIALS: (CONT)	carbon dioxide gas and a layer of solid polyurea. Reaction with water will generate carbon dioxide and heat. Avoid contact with metals such as: Aluminum. Zinc. Brass. Tin. Copper. Galvanized metals. Avoid contact with absorbent materials such as: Moist organic absorbents. Avoid unintended contact with polyols. The reaction of polyols and isocyanates generate heat.
POSSIBILITY OF HAZARDOUS REACTIONS:	Can occur. Exposure to elevated temperatures can cause product to decompose and generate gas. This can cause pressure build-up and/or rupturing of closed containers. Polymerization can be catalyzed by: Strong bases. Water.

11. TOXICOLOGICAL INFORMATION

SIGNS AND SYMPTOMS OF OVEREXPOSURE:	Shortness of breath.
ACUTE EFFECTS:	
EYE:	May cause moderate eye irritation. May cause slight temporary corneal injury.
SKIN:	Skin contact may cause an allergic skin reaction. Animal studies have shown that skin contact with isocyanates may play a role in respiratory sensitization.
INHALATION:	May cause allergic respiratory reaction. MDI concentrations below the exposure guidelines may cause allergic respiratory reactions in individuals already sensitized. Asthma-like symptoms may include coughing, difficult breathing and a feeling of tightness in the chest. Occasionally, breathing difficulties may be life threatening.
INGESTION:	Single dose or oral toxicity is low. Swallowing small amounts during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful.
TARGET ORGAN:	Specific Target Organ Systemic Toxicity (Single Exposure)
	May cause respiratory irritation.
Route of Exposure:	Inhalation
Target Organs:	Respiratory system
	Specific Target Organ Systemic Toxicity (Repeated Exposure)
	Tissue injury in the upper respiratory tract and lungs has been observed in laboratory animals after repeated excessive exposures to MDI/polymeric MDI aerosols. Contains a component which is reported to be a weak organophosphate-type cholinesterase inhibitor. Excessive exposure may produce organophosphate type cholinesterase inhibition. Signs and symptoms of excessive exposure may be headache, dizziness, incoordination, muscle twitching, tremors, nausea, abdominal cramps, diarrhea, sweating, pinpoint pupils, blurred vision, salivation, tearing, tightness in chest, excessive urination, convulsions.
CHRONIC EFFECTS:	N/A
ACUTE TOXICITY VALUES:	
Acute oral toxicity	Low toxicity if swallowed. Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury.
	LD50, Rat, > 5,000 mg/kg
Acute dermal toxicity	Prolonged skin contact is unlikely to result in absorption of harmful amounts.
	Typical for this family of materials.
	LD50, Rabbit, > 9,400 mg/kg
Acute inhalation toxicity	For similar material(s): 1,1'-methylenebis(4-isocyanato-benzen.
	LC50, Rat, 1 Hour, Aerosol, 2.24 mg/l
	For similar material(s): 1,1'-methylenebis(4-isocyanato-benzen.
	LC50, Rat, 4 Hour, Aerosol, 0.31 mg/l
SYMPTOMS OF RELATED	
PHYSICAL:	N/A
CHEMICAL:	N/A

TOXICOLOGICAL CHARACTERISTICS:	N/A
DELAYED AND IMMEDIATE EFFECTS:	N/A

12. ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION:	**Based on information for a similar material**
Acute toxicity to fish	The measured ecotoxicity is that of the hydrolyzed product, generally under conditions maximizing production of soluble species. Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 >100 mg/L in the most sensitive species tested).
	LC50, Danio rerio (zebra fish), static test, 96 Hour, > 1,000 mg/l, OECD Test Guideline 203 or Equivalent
Acute toxicity to aquatic invertebrates	EC50, Daphnia magna (Water flea), static test, 24 Hour, > 1,000 mg/l, OECD Test Guideline 202 or Equivalent
Acute toxicity to algae/aquatic plants	NOEC, Desmodesmus subspicatus (green algae), static test, 72 Hour, Growth rate inhibition, 1,640 mg/l, OECD Test Guideline 201 or Equivalent
Toxicity to bacteria	EC50, activated sludge, static test, 3 Hour, Respiration rates., > 100 mg/l
Toxicity to soil-dwelling organisms	EC50, Eisenia fetida (earthworms), Based on information for a similar material:, 14 d, > 1,000 mg/kg
Toxicity to terrestrial plants	EC50, Avena sativa (oats), Growth inhibition, 1,000 mg/l EC50, Lactuca sativa (lettuce), Growth inhibition, 1,000 mg/l
PERSISTENCE AND DEGRADABILITY:	
Biodegradability:	In the aquatic and terrestrial environment, material reacts with water forming predominantly insoluble polyureas which appear to be stable. In the atmospheric environment, material is expected to have a short tropospheric half-life, based on calculations and by analogy with related diisocyanates.
10-day Window:	Not applicable
Biodegradation:	0 %
Exposure time:	28 d
Method:	OECD Test Guideline 302C or Equivalent
BIO-ACCUMULATIVE POTENTIAL:	
Bioaccumulation:	Bioconcentration potential is low (BCF < 100 or Log Pow < 3).
	Bioconcentration factor (BCF): 92 Cyprinus carpio (Carp) 28 d
MOBILITY:	In the aquatic and terrestrial environment, movement is expected to be limited by its reaction with water forming predominantly insoluble polyureas.
OTHER ADVERSE EFFECTS:	N/A

13. DISPOSAL CONSIDERATIONS

WASTE TREATMENT METHODS	
DISPOSAL METHOD:	DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. All disposal practices must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. AS YOUR SUPPLIER, WE HAVE NO CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESSES OF PARTIES HANDLING OR USING THIS MATERIAL. THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN ITS INTENDED CONDITION AS DESCRIBED IN MSDS SECTION: Composition Information. FOR UNUSED & UNCONTAMINATED PRODUCT, the preferred options include sending to a licensed, permitted: Recycler. Reclaimer. Incinerator or other thermal destruction device.
EMPTY CONTAINER:	Empty containers should be decontaminated and either passed to an approved drum recycler or destroyed.

14. TRANSPORT INFORMATION

WASTE TREATMENT METHODS	
DOT (DEPARTMENT OF TRANSPORTATION) TECHNICAL NAME:	N/A
UN NUMBER:	NA 3082
UN PROPER SHIPPING NAME:	OTHER REGULATED SUBSTANCES, LIQUID, N.O.S.(MDI)
TRANSPORT HAZARD CLASS:	9
PACKING GROUP:	III
MARINE POLLUTANT:	N/A
SPECIAL PRECAUTIONS:	N/A

15. REGULATORY INFORMATION

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312

Acute toxicity (any route of exposure)
Respiratory or skin sensitization
Specific target organ toxicity (single or repeated exposure)
Skin corrosion or irritation
Serious eye damage or eye irritation

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Section 313

This product contains the following substances which are subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and which are listed in 40 CFR 372.

Components	CASRN
1,1'-methylenebis(4-isocyanato-benzen	**101-68-8 / 26447-40-5**
Propylene glycol	**25322-69-4**
Glycerol propoxylate	**25791-96-2**
Glycerol propoxylate-b-ethoxylate	**9082-00-2**

Pennsylvania Worker and Community Right-To-Know Act:

To the best of our knowledge, this product does not contain chemicals at levels which require reporting under this statute.

California Prop. 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

United States TSCA Inventory (TSCA)

All components of this product are in compliance with the inventory listing requirements of the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

16. OTHER INFORMATION

Legend

ACGIH	USA. ACGIH Threshold Limit Values (TLV)
C	Ceiling
OSHA Z-1	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
STEL	Short term exposure limit
TWA	Time weighted average

Full text of other abbreviations

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP -Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO -International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO -International Organization for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 -Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population(Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL – No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP – National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bio accumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the EuropeanParliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA -Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bio accumulative

Information Source and References

This SDS is prepared by Product Regulatory Services and Hazard Communications Groups from information supplied by internal references within our company.

Burtin Polymer Innovations urges each customer or recipient of this (M)SDS to study it carefully andconsult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific (M)SDSs, we are not and cannot be responsible for (M)SDSs obtained from any source other than ourselves. If you have obtained an (M)SDS from another source or if you are not sure that the (M)SDS you have is current, please contact us for the most current version.