POLYONE CORPORATION

MATERIAL SAFETY DATA SHEET

(P1) ISO 3000Y

1. PRODUCT AND COMPANY IDENTIFICATION

POLYONE CORPORATION
8155 Cobb Center Drive, Kennesaw, GA 30152

Telephone	:	Product Stewardship (770) 590-3500 x.3563
Emergency telephone	:	**CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident).**
Product name	:	(P1) ISO 3000Y
Product code	:	FO20017597
Chemical Name	:	Mixture
CAS-No.	:	Mixture
Product Use	:	Industrial Applications

2. COMPOSITION/INFORMATION ON REGULATED INGREDIENTS

Components	CAS-No.	Weight %
Methylenediphenyl diisocyanate	26447-40-5	5 - 10
Polymethylene polyphenylene isocyanate	9016-87-9	30 - 60
4,4'-Methylenediphenyl diisocyanate (MDI)	101-68-8	30 - 60

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

This product has not been evaluated as a whole for health effects. Information provided on the health effects of this product is based on individual components. In addition, some vapors or contaminants may be released upon heating and the end-user (fabricator) must take the necessary precautions (mechanical ventilation, respiratory protection, etc.) to protect employees from exposure. See sections 8 and 11 for special precautions.

POTENTIAL HEALTH EFFECTS

Routes of Exposure: : Skin contact, Inhalation, Ingestion

Acute exposure

Inhalation	:	Inhalation of airborne droplets may cause irritation of the respiratory tract.
Ingestion	:	May be harmful if swallowed.
Eyes	:	May cause eye/skin irritation.
Skin	:	

Chronic exposure : Refer to Section 11 for Toxicological Information.

Medical Conditions Aggravated by Exposure:	:	None known.

4. FIRST AID MEASURES

Inhalation	:	Move to fresh air in case of accidental inhalation of vapors or fumes from overheating or combustion. When symptoms persist or in all cases of doubt seek medical advice.
Ingestion	:	Never give anything by mouth to an unconscious person. Seek medical attention if necessary. Do not induce vomiting without medical advice.
Eyes	:	Rinse immediately with plenty of water for at least 15 minutes. If eye irritation persists, seek medical attention.
Skin	:	Wash off with soap and plenty of water. If skin irritation persists seek medical attention.

5. FIRE-FIGHTING MEASURES

Flash point	:	No data available
Flammable Limits		
Upper explosion limit	:	No data available
Lower explosion limit	:	No data available
Autoignition temperature	:	No data available
Suitable extinguishing media	:	Carbon dioxide (CO2), Water, Foam, Dry chemical.
Special Fire Fighting Procedures	:	Fullface self-contained breathing apparatus (SCBA) used in positive pressure mode should be worn to prevent inhalation of airborne contaminants. Cool closed containers exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses.
Unusual Fire/Explosion Hazards	:	Burning dry latex produces dense black smoke with the possibility of toxic vapors. Residual latex material contained in empty drums may decompose when burned producing toxic or irritating fumes. Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), other hazardous materials, and smoke are all possible.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	:	Ensure response personnel are properly protected (see section 8 for respiratory or other protection guidelines.) Use caution as floors may be slippery.
Environmental precautions	:	The product should not be allowed to enter drains, water courses or the soil.
Methods for cleaning up	:	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Sweep up and shovel into suitable

containers for disposal.

7. HANDLING AND STORAGE

Handling	:	Use only in area provided with appropriate exhaust ventilation. Prolonged heating may result in product degradation. Material may settle during storage. Careful mixing without introduction of air may be necessary before use.
Storage	:	Containers which are opened must be carefully resealed and kept upright to prevent leakage. Keep in a dry, cool place. Keep from freezing and temperature extremes.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Respiratory protection	:	A respirator is normally not required for routine handling of product in areas of good general ventilation and adequate local exhaust at processing equipment during routine operation. Airborne contaminant levels should be maintained below the occupational exposure guidelines.
Eye/Face Protection	:	Safety glasses with side-shields Wear goggles or face shield during operations that present a splash potential.
Hand protection	:	Impervious gloves such as rubber or PVC
Skin and body protection	:	Long sleeved shirts and long pants are adequate for normal handling. Where operations present a splash or spill potential, employees should wear chemically resistant clothing, boots, apron, gloves, and eye/face protection.
Additional Protective Measures	:	Safety shoes
General Hygiene Considerations	:	Wash hands before breaks and immediately after handling the product. Handle in accordance with good industrial hygiene and safety practices.
Engineering measures	:	Adequate ventilation and/or appropriate respiratory protection may also be necessary to minimize employee exposure to processing vapors.

Exposure limit(s)

Components	Value	Exposure time	Exposure type	List:
4,4'-Methylenedipheny l diisocyanate (MDI)	0.005 ppm	Time Weighted Average (TWA):	as MDI	ACGIH
	0.02 ppm 0.2 mg/m3	Ceiling Limit Value:	as MDI	OSHA Z1
	0.005 ppm 0.051 mg/m3	Time Weighted Average (TWA):		MX OEL
	0.02 ppm 0.2 mg/m3	Time Weighted Average (TWA):		MX OEL

9. PHYSICAL AND CHEMICAL PROPERTIES

Form	: liquid	Evaporation rate	: Slower than Butyl Acetate
Appearance	: liquid	Specific Gravity	: Not determined
Color	: NO PIGMENT	Bulk density	: Not applicable
Odour	: Slight	Vapour pressure	: Not established
Melting point/range	: Not applicable	Vapour density	: Heavier than air.
Boiling Point:	: Not established	pH	: Not determined
Water solubility	: completely miscible		

10. STABILITY AND REACTIVITY

Stability : Stable.

Hazardous Polymerization : Will not occur.

Conditions to avoid : Extremes of temperature and direct sunlight. Keep from freezing.

Incompatible Materials : Acids, metal salts, and solvents

Hazardous decomposition products : Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), other hazardous materials, and smoke are all possible.

11. TOXICOLOGICAL INFORMATION

This mixture has not been evaluated as a whole for health effects. Exposure effects listed are based on existing health data for the individual components which comprise the mixture.

Toxicity Overview
This product contains the following components which in their pure form have the following characteristics:

CAS-No.	Chemical Name	Effect	Target Organ
26447-40-5	Methylenediphenyl diisocyanate	Irritant	Eyes, Skin, Respiratory system.
		sensitizer	Respiratory system, Skin.
9016-87-9	Polymethylene polyphenylene isocyanate	Irritant	Eyes, Skin, Respiratory system.
		sensitizer	Skin, Respiratory system.

		Toxic	Refer to LC50 / LD50 Data on MSDS..
101-68-8	4,4'-Methylenediphenyl diisocyanate (MDI)	Systemic effects	Eyes, Respiratory system.
		Irritant	Eyes, Skin, Respiratory system.
		sensitizer	Skin, Respiratory system.
		Toxic	Refer to LC50 / LD50 Data on MSDS..

LC50 / LD50
This product contains the following components which, in their pure form, have the following toxicity data:

CAS-No.	Chemical Name	Route	Value	Species
9016-87-9	Polymethylene polyphenylene isocyanate	LC50 Oral LD50 Dermal LD50	490 mg/m3 49 gm/kg > 9,400 mg/kg	rat rat rabbit
101-68-8	4,4'-Methylenediphenyl diisocyanate (MDI)	LC50 Oral LD50	178 mg/m3 9,200 mg/kg	rat rat

Additional Health Hazard Information:
Methylenediphenyl diisocyanate 26447-40-5 Isocyanates in general are irritants to the skin, eyes, and respiratory system. Isocyanates are skin and respiratory sensitizers. Exposure can result in an asthma-like condition or skin rashes. Sensitized individuals should be kept from exposure to unreacted isocyanates.

Additional Health Hazard Information:
4,4'-Methylenediphenyl diisocyanate (MDI) 101-68-8 Isocyanates in general are irritants to the skin, eyes, and respiratory system. Isocyanates are skin and respiratory sensitizers. Exposure can result in an asthma-like condition or skin rashes. Sensitized individuals should be kept from exposure to unreacted isocyanates.

12. ECOLOGICAL INFORMATION

Persistence and degradability : No data available

Environmental Toxicity : No data available

Bioaccumulation Potential : No data available

Additional advice : No data available

13. DISPOSAL CONSIDERATIONS

Product : Where possible recycling is preferred to disposal or incineration. The generator of waste material has the responsibility for proper waste classification, transportation and disposal in accordance with applicable federal, state/provincial and local regulations.

Contaminated packaging : Recycling is preferred when possible. The generator of waste material has the responsibility for proper waste classification, transportation

and disposal in accordance with applicable federal, state/provincial and local regulations.

14. TRANSPORT INFORMATION

U.S. DOT Classification : Refer to specific regulation.

ICAO/IATA (air) : Refer to specific regulation.

IMO / IMDG (maritime) : Refer to specific regulation.

15. REGULATORY INFORMATION

US Regulations:

OSHA Status : Classified as hazardous based on components.

TSCA Status : All components of this product are listed on or exempt from the TSCA Inventory.

US. EPA CERCLA Hazardous Substances (40 CFR 302)

Not applicable

California Proposition 65 : Not applicable

SARA Title III Section 302 Extremely Hazardous Substance

Unless specific chemicals are identified under this section, this product is Not Applicable under this regulation

SARA Title III Section 313 Toxic Chemicals:

Unless specific chemicals are identified under this section, this product is Not Applicable under this regulation

Chemical Name	CAS-No.	Weight %
METHYLENEBIS(PHENYLISOCYANATE) (MDI)	101-68-8	30.00 - 60.00
POLYMERIC DIPHENYLMETHANE DIISOCYANATE	9016-87-9	30.00 - 60.00

Canadian Regulations:

National Pollutant Release Inventory (NPRI)

Chemical Name	CAS-No.	Weight %	NPRI ID#
4,4'-Methylenediphenyl diisocyanate (MDI)	101-68-8	30.00 - 60.00	156

Polymethylene polyphenylene isocyanate	9016-87-9	30.00 - 60.00	190

WHMIS Classification : D1A

WHMIS Ingredient Disclosure List

CAS-No.
101-68-8

DSL : All components of this product are on the Canadian Domestic Substances List (DSL) or are exempt.

National Inventories:

Australia AICS : Listed

China IECS : Listed

Europe EINECS : Listed

Japan ENCS : Listed

Korea KECI : Listed

Philippines PICCS : Listed

16. OTHER INFORMATION

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text.