# SAFETY DATA SHEET

1. Identification			
Product identifier	PLEXUS® MA330 Adhesive		
Other means of identification			
SKU#	0923		
Recommended use	Not available.		
Recommended restrictions	None known.		
Manufacturer/Importer/Supplier	Distributor information		
Company name	ITW Performance Polymers		
Address	35 Brownridge Rd		
	Unit 1		
	Halton Hills, ON L7G 0C6		
Contact person	Customer Service		
Telephone number	978-777-1100		
Fax			
E-mail			
Emergency telephone number	800-424-9300		
Supplier	Not available.		
2. Hazard identification			
Physical hazards	Flammable liquids	Category 2	
Health hazards	Acute toxicity, inhalation	Category 4	
	Skin corrosion/irritation	Category 2	
	Serious eye damage/eye irritation	Category 2A	
	Sensitization, skin	Category 1A	
	Specific target organ toxicity following single exposure	Category 3 respiratory tract irritation	
Environmental hazards	Not classified.		
Label elements			
	$\checkmark$ $\checkmark$		
Signal word	Danger		
Hazard statement	Highly flammable liquid and vapour. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. Harmful if inhaled. May cause respiratory irritation.		
Precautionary statement			
Prevention	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Ground and bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use non-sparking tools. Take action to prevent static discharges. Wash thoroughly after handling. 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.		

Response	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. 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. Call a POISON CENTRE/doctor if you feel unwell. If skin irritation or rash occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. In case of fire: Use appropriate media to extinguish.
Storage	Keep cool. 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.
Other hazards	None known.
Supplemental information	None.

## 3. Composition/information on ingredients

**Mixtures** 

Chemical name	Common name and synonyms	CAS number	%
Methyl methacrylate		80-62-6	53.43
CHLOROSULFINATED POLYETHLENE		68037-39-8	20.99
DIISODECYL ADIPATE		27178-16-1	3.49
Titanium dioxide		13463-67-7	1 - 5
Maleic acid		110-16-7	2.35
DIISODECYL PHTHALATE (DIDP)		26761-40-0	1.41
BUTYLATED HYDROXYTOLUENE (BHT)		128-37-0	1.13
Cumene hydroperoxide		80-15-9	1
Hydroquinone		123-31-9	0.01
Other components below reportable le	evels		13.02

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures	
Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Call a poison centre or doctor/physician if you feel unwell.
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 develops and persists.
Ingestion	Rinse mouth. Get medical attention if symptoms occur.
Most important symptoms/effects, acute and delayed	Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
General information	Take off all contaminated clothing immediately. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.
5. Fire-fighting measures	
Suitable extinguishing media	Water fog. Foam. Carbon dioxide (CO2). Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.

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

Specific hazards arising from the chemical	Vapours may form explosive mixtures with air. Vapours may travel considerable distance to a source of ignition and flash back. This product is a poor conductor of electricity and can become electrostatically charged. If sufficient charge is accumulated, ignition of flammable mixtures can occur. To reduce potential for static discharge, use proper bonding and grounding procedures. This liquid may accumulate static electricity when filling properly grounded containers. Static electricity accumulation may be significantly increased by the presence of small quantities of water or other contaminants. Material will float and may ignite on surface of water. 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.
Fire fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. 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	Highly flammable liquid and vapour.
6. Accidental release mea	sures
Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist/vapours. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Use appropriate containment to avoid environmental contamination. Transfer by mechanical means such as vacuum truck to a salvage tank or other suitable container for recovery or safe disposal. 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	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil etc) away from spilled material. Take precautionary measures against static discharge. Use only non-sparking tools.
	Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.
	Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.
Environmental precautions	Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Avoid discharge into drains, water courses or onto the ground. Use appropriate containment to avoid environmental contamination.
7. Handling and storage	
Precautions for safe handling	Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. When using do not smoke. Explosion-proof general and local exhaust ventilation. Minimize fire risks from flammable and combustible materials (including combustible dust and static accumulating liquids) or dangerous reactions with incompatible materials. Handling operations that can promote accumulation of static charges include but are not limited to: mixing, filtering, pumping at high flow rates, splash filling, creating mists or sprays, tank and container filling, tank cleaning, sampling, gauging, switch loading, vacuum truck operations. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Avoid breathing mist/vapours. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.
	For additional information on equipment bonding and grounding, refer to the Canadian Electrical Code in Canada, (CSA C22.1), or the American Petroleum Institute (API) Recommended Practice 2003, "Protection Against Ignitions Arising out of Static, Lightning, and Stray Currents" or National Fire Protection Association (NFPA) 77, "Recommended Practice on Static Electricity" or National Fire Protection Association (NFPA) 70, "National Electrical Code".
Conditions for safe storage, including any incompatibilities	Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Eliminate sources of ignition. Avoid spark promoters. Ground/bond container and equipment. These alone may be insufficient to remove static electricity. Store in a cool, dry place out of direct sunlight. Store in tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS).

### 8. Exposure controls/personal protection

#### **Occupational exposure limits**

#### **US. ACGIH Threshold Limit Values** Components Form Value Type BUTYLATED TWA Inhalable fraction and 2 mg/m3 HYDROXYTOLUENE (BHT) vapor. (CAS 128-37-0) HYDROQUINONE (CAS TWA 1 mg/m3 123-31-9) METHYL METHACRYLATE STEL 100 ppm (CAS 80-62-6) TWA 50 ppm Titanium dioxide (CAS TWA 10 mg/m3 13463-67-7)

#### Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Components	Туре	Value	
BUTYLATED HYDROXYTOLUENE (BHT) (CAS 128-37-0)	TWA	10 mg/m3	
HYDROQUINONE (CAS 123-31-9)	TWA	2 mg/m3	
METHYL METHACRYLATE (CAS 80-62-6)	STEL	410 mg/m3	
		100 ppm	
	TWA	205 mg/m3	
		50 ppm	
Titanium dioxide (CAS 13463-67-7)	TWA	10 mg/m3	

# Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Components	Туре	Value	Form
BUTYLATED HYDROXYTOLUENE (BHT) (CAS 128-37-0)	TWA	2 mg/m3	Vapor and aerosol, inhalable.
HYDROQUINONE (CAS 123-31-9)	TWA	1 mg/m3	
METHYL METHACRYLATE (CAS 80-62-6)	STEL	100 ppm	
	TWA	50 ppm	
Titanium dioxide (CAS 13463-67-7)	TWA	3 mg/m3	Respirable fraction.
		10 mg/m3	Total dust.

### Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)

Components	Туре	Value	Form
BUTYLATED HYDROXYTOLUENE (BHT) (CAS 128-37-0)	TWA	2 mg/m3	Inhalable fraction and vapor.
HYDROQUINONE (CAS 123-31-9)	TWA	1 mg/m3	
METHYL METHACRYLATE (CAS 80-62-6)	STEL	100 ppm	
	TWA	50 ppm	
Titanium dioxide (CAS 13463-67-7)	TWA	10 mg/m3	

## Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

Components	Туре	Value	Form
BUTYLATED HYDROXYTOLUENE (BHT) (CAS 128-37-0)	TWA	2 mg/m3	Inhalable fraction and vapor.
DIISODECYL PHTHALATE (DIDP) (CAS 26761-40-0)	TWA	5 mg/m3	
HYDROQUINONE (CAS 123-31-9)	TWA	1 mg/m3	
METHYL METHACRYLATE (CAS 80-62-6)	STEL	100 ppm	
	TWA	50 ppm	
Titanium dioxide (CAS 13463-67-7)	TWA	10 mg/m3	

## Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety)

Components	Туре	Value Form	
BUTYLATED HYDROXYTOLUENE (BHT) (CAS 128-37-0)	TWA	10 mg/m3	_
HYDROQUINONE (CAS 123-31-9)	TWA	2 mg/m3	
METHYL METHACRYLATE (CAS 80-62-6)	TWA	205 mg/m3	
		50 ppm	
Titanium dioxide (CAS 13463-67-7)	TWA	10 mg/m3 Total dust.	

## Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21)

Components	Туре	Value	Form
BUTYLATED HYDROXYTOLUENE (BHT) (CAS 128-37-0)	15 minute	4 mg/m3	Inhalable fraction and vapor.
	8 hour	2 mg/m3	Inhalable fraction and vapor.
HYDROQUINONE (CAS 123-31-9)	15 minute	4 mg/m3	
	8 hour	2 mg/m3	
METHYL METHACRYLATE (CAS 80-62-6)	15 minute	100 ppm	
	8 hour	50 ppm	
Titanium dioxide (CAS 13463-67-7)	15 minute	20 mg/m3	
	8 hour	10 mg/m3	
logical limit values	No biological exposure limits noted for	the ingredient(s).	
propriate engineering htrols	Explosion-proof general and local exhat Ventilation rates should be matched to exhaust ventilation, or other engineerin exposure limits. If exposure limits have acceptable level. Provide eyewash sta	o conditions. If applicable, use ng controls to maintain airborn e not been established, maint	e process enclosures, local ne levels below recommend
ividual protection measures,	, such as personal protective equipme	ent	
Eye/face protection	Chemical respirator with organic vapo	ur cartridge and full facepiece	).
Skin protection Hand protection	Wear appropriate chemical resistant g	loves.	
Other	Wear appropriate chemical resistant c	lothing.	
Respiratory protection	Chemical respirator with organic vapo	ur cartridge and full facepiece	).

When using do not smoke. 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

9. Physical and chemical	higherites
Appearance	Paste.
Physical state	Liquid.
Form	Paste.
Colour	Off-white.
Odour	Fragrant
Odour threshold	Not available.
рН	Not available.
Melting point/freezing point	-48 °C (-54.4 °F) estimated
Initial boiling point and boiling range	100.5 °C (212.9 °F) estimated
Flash point	10.0 °C (50.0 °F) estimated
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or exp	losive limits
Flammability limit - lower (%)	1.7 %
Flammability limit - upper (%)	12.5 %
Explosive limit - lower ( %)	Not available.
Explosive limit – upper (%)	Not available.
Vapour pressure	28 mm Hg @ 20 °C
Vapour density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Density	1.04 g/cm3 estimated
Explosive properties	Not explosive.
Flammability class	Flammable IB estimated
Oxidising properties	Not oxidising.
Specific gravity	1.04 estimated
10. Stability and reactivity	
Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.

Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerisation does not occur.
Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Strong oxidising agents. Nitrates. Peroxides.
Hazardous decomposition products	No hazardous decomposition products are known.

## 11. Toxicological information

Information on likely routes of e	exposure		
Inhalation	Harmful if inhaled.		
Skin contact	Causes skin irritation. May cause an allergic skin reaction.		
Eye contact	Causes serious eye irritation.		
Ingestion	Knowledge about health hazard is incomplete.		
Symptoms related to the physical, chemical and toxicological characteristics	Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.		
Information on toxicological eff	iects		
Acute toxicity	Harmful if inhaled.		
Components	Species		Test Results
BUTYLATED HYDROXYTOLUEN Acute Oral LD50	IE (BHT) (CAS 128-37-0) Rat		890 mg/kg
DIISODECYL PHTHALATE (DIDF	P) (CAS 26761-40-0)		
<u>Acute</u> Dermal LD50	Rabbit		> 3160 mg/kg
Inhalation LC50	Rat		> 12.54 mg/l, 4 Hours
<b>Oral</b> LD50	Rat		64000 mg/kg
Hydroquinone (CAS 123-31-9) <u>Acute</u> Dermal LD50	Rat		> 900 mg/kg
Maleic acid (CAS 110-16-7) <u>Acute</u> Dermal	nat		> 500 mg/kg
LD50 <b>Oral</b>	Rabbit		1560 mg/kg
LD50 Methyl methacrylate (CAS 80-62-	Rat		708 mg/kg
<u>Acute</u> Inhalation			
LC50 <b>Oral</b>	Mouse		18.5 mg/l, 2 Hours
LD50	Rat		7800 mg/kg
Skin corrosion/irritation Serious eye damage/eye irritation	Causes skin irritation. Causes serious eye irritation.		
Respiratory or skin sensitisatio	n		
ACGIH sensitisation			
Hydroquinone (CAS 123-31-9) Methyl methacrylate (CAS 80-62-6) Canada - Alberta OELs: Irritant		Dermal sensitization Dermal sensitization	
BUTYLATED HYDROXY (CAS 128-37-0)	TOLUENE (BHT)	Irritant	
Titanium dioxide (CAS 13463-67-7)		Irritant	

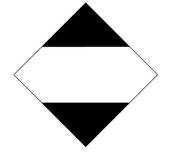
Canada - British Columbia (	DELs: Respiratory or skin sen	sitiser
Hydroquinone (CAS 123-31-9)		Capable of causing respiratory, dermal or conjunctival sensitization.
		Capable of causing respiratory, dermal or conjunctival sensitization.
Canada - Manitoba OELs Ha	azard: Dermal sensitization	
Hydroquinone (CAS 123-		Dermal sensitization
Methyl methacrylate (CAS		Dermal sensitization
Canada - Quebec OELs: Ser		Sensitiser.
Methyl methacrylate (CAS Canada - Saskatchewan OE		Sensuser.
Methyl methacrylate (CAS		Sensitiser.
Respiratory sensitisation	,	k of data the classification is not possible.
Skin sensitisation	May cause an allergic skin rea	
Germ cell mutagenicity		k of data the classification is not possible.
Carcinogenicity		k of data the classification is not possible.
ACGIH Carcinogens		
BUTYLATED HYDROXY	TOLUENE (BHT)	A4 Not classifiable as a human carcinogen.
(CAS 128-37-0) Hydroquinone (CAS 123-	21.0)	A3 Confirmed animal carcinogen with unknown relevance to
Hydroquinone (CAS 123-	51-9)	humans.
Methyl methacrylate (CAS		A4 Not classifiable as a human carcinogen.
Titanium dioxide (CAS 13 Canada - Manitoba OELs: ca	,	A4 Not classifiable as a human carcinogen.
BUTYLATED HYDROXY		Not classifiable as a human carcinogen.
(CAS 128-37-0)		Not olabolitable ab a haman barolinogon.
Hydroquinone (CAS 123-		Confirmed animal carcinogen with unknown relevance to humans.
Methyl methacrylate (CAS Titanium dioxide (CAS 13		Not classifiable as a human carcinogen. Not classifiable as a human carcinogen.
	Evaluation of Carcinogenicity	
BUTYLATED HYDROXY (CAS 128-37-0)		3 Not classifiable as to carcinogenicity to humans.
Hydroquinone (CAS 123-		3 Not classifiable as to carcinogenicity to humans.
Methyl methacrylate (CAS 80-62-6) Titanium dioxide (CAS 13463-67-7)		3 Not classifiable as to carcinogenicity to humans.
Reproductive toxicity		2B Possibly carcinogenic to humans.
• •	Due to partial or complete lack of data the classification is not possible.	
Specific target organ toxicity - single exposure	May cause respiratory irritatio	11.
Specific target organ toxicity - repeated exposure	Due to partial or complete lac	k of data the classification is not possible.
Aspiration hazard	Due to partial or complete lac	k of data the classification is not possible.
Chronic effects	Prolonged inhalation may be	harmful.
12. Ecological information	า	
Ecotoxicity		as environmentally hazardous. However, this does not exclude the nt spills can have a harmful or damaging effect on the environment.
Persistence and degradability	No data is available on the de	gradability of any ingredients in the mixture.
Bioaccumulative potential		
Partition coefficient n-octan	ol / water (log Kow)	
Hydroquinone		0.59
Maleic acid Methyl methacrylate		-0.48 1.38
Mobility in soil	No data available.	
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation	
		n, global warming potential) are expected from this component.
13. Disposal consideratio	ns	
Disposal instructions		e in sealed containers at licensed waste disposal site. Dispose of nce with local/regional/national/international regulations.

Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners 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 containers should be taken to an approved waste handling site for recycling or disposal.

## 14. Transport information

-	
TDG	
UN number	UN1133
UN proper shipping name	ADHESIVES containing flammable liquid, Limited Quantity
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Packing group	III
Environmental hazards	Not available.
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
ΙΑΤΑ	
UN number	UN1133
UN proper shipping name	Adhesives containing flammable liquid, Limited Quantity
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Packing group	III
Environmental hazards	No.
ERG Code	3L
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Other information	
Passenger and cargo	Allowed with restrictions.
aircraft	
Cargo aircraft only	Allowed with restrictions.
IMDG	
UN number	UN1133
UN proper shipping name	ADHESIVES containing flammable liquid, Limited Quantity
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Packing group	III
Environmental hazards	
Marine pollutant	No.
EmS	F-E, S-D
	Read safety instructions, SDS and emergency procedures before handling.
Transport in bulk according to	Not established.
Annex II of MARPOL 73/78 and the IBC Code	
ΙΑΤΑ	





#### 15. Regulatory information

**Canadian regulations** 

This product has been classified in accordance with the hazard criteria of the HPR and the SDS contains all the information required by the HPR.

#### Controlled Drugs and Substances Act

Not regulated. Export Control List (CEPA 1999, Schedule 3) Not listed.

#### **Greenhouse Gases**

Not listed.

#### **Precursor Control Regulations**

Not regulated.

#### International regulations

#### **Stockholm Convention**

Not applicable.

Rotterdam Convention

Not applicable.

Kyoto Protocol

Not applicable.

Montreal Protocol

Not applicable. Basel Convention

## Not applicable.

#### International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	No
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)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "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(s).

16. Other information	
Issue date	27-May-2019
Version No.	01

ITW Performance Polymers cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. 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 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. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release.

# SAFETY DATA SHEET

1. Identification		
Product identifier	PLEXUS® MA330 Activator	
Other means of identification		
SKU#	0924	
Recommended use	Not available.	
<b>Recommended restrictions</b>	None known.	
Manufacturer/Importer/Supplier/	Distributor information	
Company name	ITW Performance Polymers	
Address	35 Brownridge Rd	
	Unit 1	
	Halton Hills, ON L7G 0C6	
Contact person	Customer Service	
Telephone number	978-777-1100	
Fax		
E-mail		
Emergency telephone number	800-424-9300	
Supplier	Not available.	
2. Hazard identification		
Physical hazards	Flammable liquids	Category 2
Health hazards	Acute toxicity, inhalation	Category 4
	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2B
	Sensitization, skin	Category 1A
	Specific target organ toxicity following single exposure	Category 3 respiratory tract irritation
Environmental hazards	Not classified.	
Label elements		
Signal word	Danger	
Hazard statement	Highly flammable liquid and vapour. Causes skin irritation. May cause an allergic skin reaction. Causes eye irritation. Harmful if inhaled. May cause respiratory irritation.	
Precautionary statement		
Prevention	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Ground and bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use non-sparking tools. Take action to prevent static discharges. Wash thoroughly after handling. 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.	

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. 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. Call a POISON CENTRE/doctor if you feel unwell. If skin irritation or rash occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. In case of fire: Use appropriate media to extinguish.
Keep cool. Store in a well-ventilated place. Keep container tightly closed. Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.
None known.
None.

## 3. Composition/information on ingredients

**Mixtures** 

Chemical name	Common name and synonyms	CAS number	%
Methyl methacrylate		80-62-6	74.21
PYRIDINE, 3,5-DIETHYL-1,2-DIHYDRO-1-PHE NYL-2-P ROPYL-		34562-31-7	3.19
Calcium carbonate		471-34-1	0.15
Other components below reportable	levels		22.468

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures	
Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Call a poison centre or doctor/physician if you feel unwell.
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 develops and persists.
Ingestion	Rinse mouth. Get medical attention if symptoms occur.
Most important symptoms/effects, acute and delayed	Irritation of eyes. Exposed individuals may experience eye tearing, redness, and discomfort. May cause respiratory irritation. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
General information	Take off all contaminated clothing immediately. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.
5. Fire-fighting measures	
Suitable extinguishing media	Water fog. Foam. Carbon dioxide (CO2). Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Vapours may form explosive mixtures with air. Vapours may travel considerable distance to a source of ignition and flash back. This product is a poor conductor of electricity and can become electrostatically charged. If sufficient charge is accumulated, ignition of flammable mixtures can occur. To reduce potential for static discharge, use proper bonding and grounding procedures. This liquid may accumulate static electricity when filling properly grounded containers. Static electricity accumulation may be significantly increased by the presence of small quantities of water or other contaminants. Material will float and may ignite on surface of water. During fire, gases hazardous to health may be formed.
Special protective equipment	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
and precautions for firefighters	
and precautions for firefighters Fire fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.

6. Accidental release measures		
Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist/vapours. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Use appropriate containment to avoid environmental contamination. Transfer by mechanical means such as vacuum truck to a salvage tank or other suitable container for recovery or safe disposal. 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	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil etc) away from spilled material. Take precautionary measures against static discharge. Use only non-sparking tools.	
	Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.	
	Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. 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. Use appropriate containment to avoid environmental contamination.	
7. Handling and storage		
Precautions for safe handling	Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. When using do not smoke. Explosion-proof general and local exhaust ventilation. Minimize fire risks from flammable and combustible materials (including combustible dust and static accumulating liquids) or dangerous reactions with incompatible materials. Handling operations that can promote accumulation of static charges include but are not limited to: mixing, filtering, pumping at high flow rates, splash filling, creating mists or sprays, tank and container filling, tank cleaning, sampling, gauging, switch loading, vacuum truck operations. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Avoid breathing mist/vapours. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.	
	For additional information on equipment bonding and grounding, refer to the Canadian Electrical Code in Canada, (CSA C22.1), or the American Petroleum Institute (API) Recommended Practice 2003, "Protection Against Ignitions Arising out of Static, Lightning, and Stray Currents" or National Fire Protection Association (NFPA) 77, "Recommended Practice on Static Electricity" or National Fire Protection Association (NFPA) 70, "National Electrical Code".	
Conditions for safe storage, including any incompatibilities	Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Eliminate sources of ignition. Avoid spark promoters. Ground/bond container and equipment. These alone may be insufficient to remove static electricity. Store in a cool, dry place out of direct sunlight. Store in tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS).	
8. Exposure controls/personal protection		

### Occupational exposure limits

US. ACGIH Threshold Limit Values Components	Туре	Value	
METHYL METHACRYLATE (CAS 80-62-6)	STEL	100 ppm	
	TWA	50 ppm	

		Туре		
Calcium carbonate (CAS 471-34-1)		TWA	10 mg/m3	
METHYL METHACRYLATE (CAS 80-62-6)	:	STEL	410 mg/m3	
			100 ppm	
		TWA	205 mg/m3	
			50 ppm	
Canada. British Columbia OE	Ls. (Occupati	onal Exposure Limits	for Chemical Substances, O	ccupational Health and
Safety Regulation 296/97, as	amended)		-	
Components		Туре	Value	Form
Calcium carbonate (CAS 471-34-1)	:	STEL	20 mg/m3	Total dust.
		TWA	3 mg/m3	Respirable fraction.
			10 mg/m3	Total dust.
METHYL METHACRYLATE (CAS 80-62-6)	:	STEL	100 ppm	
		TWA	50 ppm	
Canada. Manitoba OELs (Reg	J. 217/2006, Th	e Workplace Safety	And Health Act)	
Components		Туре	Value	
METHYL METHACRYLATE (CAS 80-62-6)		STEL	100 ppm	
		TWA	50 ppm	
Canada. Ontario OELs. (Cont Components METHYL METHACRYLATE		re to Biological or Ch Type STEL	emical Agents) Value 100 ppm	
(CAS 80-62-6)				
	·	TWA	50 ppm	
Canada. Quebec OELs. (Minis Components	-	Regulation respectin	ng occupational health and sa Value	afety) Form
Calcium carbonate (CAS 471-34-1)	· · · · ·	TWA	10 mg/m3	Total dust.
METHYL METHACRYLATE (CAS 80-62-6)		TWA	205 mg/m3	
			50 ppm	
Canada. Saskatchewan OELs Components		al Health and Safety I Type	Regulations, 1996, Table 21) Value	
Calcium carbonate (CAS 471-34-1)	<u> </u>	15 minute	20 mg/m3	
	:	8 hour	10 mg/m3	
METHYL METHACRYLATE (CAS 80-62-6)		15 minute	100 ppm	
		8 hour	50 ppm	
ogical limit values		exposure limits noted for		
ropriate engineering trols	Explosion-proc Ventilation rate exhaust ventila exposure limits	of general and local ex es should be matched ation, or other enginee s. If exposure limits ha	haust ventilation. Good general to conditions. If applicable, use ring controls to maintain airborr ve not been established, mainta tation and safety shower.	process enclosures, local ne levels below recommend

Skin protection Hand protection	Wear appropriate chemical resistant gloves.
Other	Wear appropriate chemical resistant clothing.
<b>Respiratory protection</b>	Chemical respirator with organic vapour cartridge and full facepiece.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	When using do not smoke. 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

Appearance Physical state	Paste. Liquid.
Form	Paste.
Colour	Black.
Odour	Fragrant
	Not available.
	Not available.
•	-48 °C (-54.4 °F) estimated
	100.5 °C (212.9 °F) estimated
range	
Flash point	10.0 °C (50.0 °F) estimated
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explo	osive limits
Flammability limit - lower (%)	2.1 % estimated
Flammability limit - upper (%)	12.5 % estimated
Explosive limit - lower ( %)	Not available.
Explosive limit – upper (%)	Not available.
Vapour pressure	51.33 hPa estimated
Vapour density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
•	0.96 g/cm3 estimated
Explosive properties	Not explosive.
Flammability class	Flammable IB estimated
Oxidising properties	Not oxidising.
Specific gravity	0.96 estimated

# 10. Stability and reactivity

Reactivity	
Chemical stability	1

The product is stable and non-reactive under normal conditions of use, storage and transport. Material is stable under normal conditions.

Possibility of hazardous reactions	Hazardous polymerisation does not occur.
Conditions to avoid	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Strong oxidising agents. Nitrates. Peroxides.
Hazardous decomposition products	No hazardous decomposition products are known.
11. Toxicological inform	nation
Information on likely routes of	f exposure
Inhalation	Harmful if inhaled.

Innalation	
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	Irritation of eyes. Exposed individuals may experience eye tearing, redness, and discomfort. May cause respiratory irritation. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.

## Information on toxicological effects

Acute toxicity Harmful if inhaled.

Components	Species	Test Results
Calcium carbonate (CAS 471-34-	1)	
Acute		
Oral		
LD50	Rat	6450 mg/kg
Methyl methacrylate (CAS 80-62-	6)	
Acute		
Inhalation		
LC50	Mouse	18.5 mg/l, 2 Hours
Oral		
LD50	Rat	7800 mg/kg
Skin corrosion/irritation	Causes skin irritation.	
Serious eye damage/eye irritation	Causes eye irritation.	
Respiratory or skin sensitisatio	n	
ACGIH sensitisation		
Methyl methacrylate (CA Canada - Alberta OELs: Irri		Dermal sensitization
Calcium carbonate (CAS Canada - British Columbia	S 471-34-1) OELs: Respiratory or skin se	Irritant nsitiser
Methyl methacrylate (CA	S 80-62-6)	Capable of causing respiratory, dermal or conjunctival sensitization.
Canada - Manitoba OELs H	azard: Dermal sensitization	
Methyl methacrylate (CA Canada - Quebec OELs: Se	-	Dermal sensitization
Methyl methacrylate (CA Canada - Saskatchewan OB	S 80-62-6) ELs Hazard Data: Sensitiser	Sensitiser.
Methyl methacrylate (CA	S 80-62-6)	Sensitiser.
<b>Respiratory sensitisation</b>	Not a respiratory sensitizer.	
Skin sensitisation	May cause an allergic skin re	eaction.
Germ cell mutagenicity	No data available to indicate mutagenic or genotoxic.	product or any components present at greater than 0.1% are
Carcinogenicity		
ACGIH Carcinogens		
Methyl methacrylate (CA	S 80-62-6)	A4 Not classifiable as a human carcinogen.
	,	5

Canada - Manitoba OELs: ca	arcinogenicity	
Methyl methacrylate (CAS 80-62-6)		Not classifiable as a human carcinogen.
	Evaluation of Carcinogenicity	
Methyl methacrylate (CAS	S 80-62-6)	3 Not classifiable as to carcinogenicity to humans.
Reproductive toxicity	This product is not expected to	cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	May cause respiratory irritatior	1.
Specific target organ toxicity - repeated exposure	Not classified.	
Aspiration hazard	Not an aspiration hazard.	
Chronic effects	Prolonged inhalation may be h	armful.
12. Ecological information	า	
Ecotoxicity		s environmentally hazardous. However, this does not exclude the t spills can have a harmful or damaging effect on the environment.
Persistence and degradability	No data is available on the deg	gradability of any ingredients in the mixture.
Bioaccumulative potential		
Partition coefficient n-octan Methyl methacrylate	ol / water (log Kow)	1.38
Mobility in soil	No data available.	
Other adverse effects		al effects (e.g. ozone depletion, photochemical ozone creation , global warming potential) are expected from this component.
13. Disposal consideratio	ns	
Disposal instructions		in sealed containers at licensed waste disposal site. Dispose of a new with local/regional/national/international regulations.
Local disposal regulations	Dispose in accordance with all	applicable regulations.
Hazardous waste code	The waste code should be ass disposal company.	igned in discussion between the user, the producer and the waste
Waste from residues / unused products		local regulations. Empty containers or liners may retain some I and its container must be disposed of in a safe manner (see:
Contaminated packaging		retain product residue, follow label warnings even after container is buld be taken to an approved waste handling site for recycling or

## 14. Transport information

TDG	
UN number	UN1133
UN proper shipping name	ADHESIVES containing flammable liquid, Limited Quantity
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Packing group	III
Environmental hazards	Not available.
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
ΙΑΤΑ	
UN number	UN1133
UN proper shipping name	Adhesives containing flammable liquid, Limited Quantity
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Packing group	III
Environmental hazards	No.
ERG Code	3L
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Other information	
Passenger and cargo aircraft	Allowed with restrictions.

Cargo aircraft only	Allowed with restrictions.
IMDG	
UN number	UN1133
UN proper shipping name	ADHESIVES containing flammable liquid, Limited Quantity
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Packing group	
Environmental hazards	
Marine pollutant	No.
EmS	F-E, S-D
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Transport in bulk according to	Not established.
Annex II of MARPOL 73/78 and	

### •

the IBC Code

IMDG; TDG

ΙΑΤΑ

15. Regulatory information

**Canadian regulations** 

This product has been classified in accordance with the hazard criteria of the HPR and the SDS contains all the information required by the HPR.

#### **Controlled Drugs and Substances Act**

Not regulated. Export Control List (CEPA 1999, Schedule 3) Not listed. **Greenhouse Gases** Not listed. **Precursor Control Regulations** Not regulated. International regulations **Stockholm Convention** Not applicable. **Rotterdam Convention** Not applicable. **Kyoto Protocol** Not applicable. **Montreal Protocol** Not applicable.

#### **Basel Convention**

Not applicable.

International Inventories

Country(s) or region	Inventory name On inventory (	(yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	No
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)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes
*A "Yes" indicates that all compo	nents of this product comply with the inventory requirements administered by the governing country(s)	

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s) A "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(s).

16. Other information	
Issue date	26-May-2019
Version No.	01
Disclaimer	ITW Performance Polymers cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. 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 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. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release.