SAFETY DATA SHEET

1. Identification		
Product identifier	PLEXUS® MA2245 Adhesive	
Other means of identification SKU#	32245	
Recommended use	Not available.	
Recommended restrictions	None known.	
Manufacturer/Importer/Supplier/	Distributor information	
Company name	ITW Performance Polymers	
Address	35 Brownridge Rd	
	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	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 1
	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 s Causes serious eye damage. May cause resp	kin irritation. May cause an allergic skin reaction. iratory 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. Avoid breathing dust/fume/gas/mist/vapours/spray. 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	INHALED: Remove person to fresh air and ke cautiously with water for several minutes. Rem Continue rinsing. Immediately call a POISON	contaminated clothing. Rinse skin with water. IF ep comfortable for breathing. IF IN EYES: Rinse nove contact lenses, if present and easy to do. CENTRE/doctor. If skin irritation or rash occurs: Get ed clothing and wash it before reuse. In case of fire:

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

Storage

Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and vapour. May cause flash fire or explosion. None.

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

Supplemental information

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Methyl methacrylate		80-62-6	30 - 60
Polyvinyl acetate		N/A	10 - 20
Benzyl 3-isobutyryloxy-1-isopropyl-2,2-dim ethylpropyl Phthalate		16883-83-3	3 - 7
Ethoxylated bisphenol A dimethacrylate		41637-38-1	1 - 5
Methacrylic acid		79-41-4	1 - 5
STYRENE, ISOPRENE COPOLYMER		25038-32-8	1 - 5
TRIMETHYLOLPROPANE TRIMETHACRYLATE		3290-92-4	1 - <3
2-(N,N-DIETHYLAMINO)ETHYL METHACRYLATE		105-16-8	0.1 - 1
Ethylene glycol		107-21-1	0.1 - 1
M-TOLYLDIETHANOLAMINE		91-99-6	0.1 - 1
Other components below reportable	levels		15 - 40

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. 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 immediately.
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. Permanent eye damage including blindness could result. 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 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.

media

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. 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
Methods and materials for containment and cleaning up	personal protection, see section 8 of the SDS. 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. Do not get this material in contact with eyes. Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid contact with eyes, skin, and clothing. 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	Form
ETHYLENE GLYCOL (CAS 107-21-1)	STEL	10 mg/m3	Aerosol, inhalable.
		50 ppm	Vapor fraction
	TWA	25 ppm	Vapor fraction
METHACRYLIC ACID (CAS 79-41-4)	TWA	20 ppm	
METHYL METHACRYLATE (CAS 80-62-6)	STEL	100 ppm	
	TWA	50 ppm	

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

Components	Туре	Value	
ETHYLENE GLYCOL (CAS 107-21-1)	Ceiling	100 mg/m3	
METHACRYLIC ACID (CAS 79-41-4)	TWA	70 mg/m3	
		20 ppm	
METHYL METHACRYLATE (CAS 80-62-6)	STEL	410 mg/m3	
		100 ppm	
	TWA	205 mg/m3	
		50 ppm	

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

Components	Туре	Value	Form
ETHYLENE GLYCOL (CAS 107-21-1)	Ceiling	100 mg/m3	Aerosol
		50 ppm	Vapour.
	STEL	20 mg/m3	Particulate.
	TWA	10 mg/m3	Particulate.
METHACRYLIC ACID (CAS 79-41-4)	TWA	20 ppm	
METHYL METHACRYLATE (CAS 80-62-6)	STEL	100 ppm	
	TWA	50 ppm	

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

	Value	Form
STEL	10 mg/m3	Aerosol, inhalable.
	50 ppm	Vapor fraction
TWA	25 ppm	Vapor fraction
TWA	20 ppm	
STEL	100 ppm	
TWA	50 ppm	
	TWA TWA STEL	50 ppmTWA25 ppmTWA20 ppmSTEL100 ppm

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

Components	Туре	Value	Form	
ETHYLENE GLYCOL (CAS 107-21-1)	Ceiling	100 mg/m3	Aerosol	

Components	ntrol of Exposure to Biological or Che Type	Value	Form
METHACRYLIC ACID (CAS 79-41-4)	TWA	20 ppm	
METHYL METHACRYLATE (CAS 80-62-6)	STEL	100 ppm	
	TWA	50 ppm	
Canada. Quebec OELs. (Mir Components	nistry of Labor - Regulation respecting Type	g occupational health and sa Value	ifety) Form
ETHYLENE GLYCOL (CAS 107-21-1)	Ceiling	127 mg/m3	Vapor and mist.
,		50 ppm	Vapor and mist.
METHACRYLIC ACID (CAS 79-41-4)	TWA	70 mg/m3	
		20 ppm	
METHYL METHACRYLATE (CAS 80-62-6)	TWA	205 mg/m3	
		50 ppm	
Canada. Saskatchewan OEI Components	₋s (Occupational Health and Safety R Type	egulations, 1996, Table 21) Value	Form
ETHYLENE GLYCOL (CAS 107-21-1)	Ceiling	100 mg/m3	Aerosol
METHACRYLIC ACID (CAS 79-41-4)	15 minute	30 ppm	
	8 hour	20 ppm	
METHYL METHACRYLATE (CAS 80-62-6)	15 minute	100 ppm	
	8 hour	50 ppm	
logical limit values	No biological exposure limits noted fo	r the ingredient(s).	
oosure guidelines	Occupational Exposure Limits are not	relevant to the current physica	al form of the product.
propriate engineering htrols	Explosion-proof general and local exh Ventilation rates should be matched to exhaust ventilation, or other engineeri exposure limits. If exposure limits hav acceptable level. Provide eyewash sta	o conditions. If applicable, use ing controls to maintain airborn e not been established, mainta	process enclosures, local e levels below recommende
ividual protection measures,	such as personal protective equipme	ent	
Eye/face protection	Wear safety glasses with side shields	(or goggles) and a face shield	
Skin protection Hand protection	Wear appropriate chemical resistant g	gloves.	
Other	Wear appropriate chemical resistant of	clothing.	
Respiratory protection	If engineering controls do not maintain limits (where applicable) or to an acce been established), an approved respin	eptable level (in countries where	
Thermal hazards	Wear appropriate thermal protective of	clothing, when necessary.	
neral hygiene nsiderations	When using do not smoke. Always ob after handling the material and before clothing and protective equipment to r be allowed out of the workplace.	eating, drinking, and/or smoking	ng. Routinely wash work
Physical and chemical	properties		
pearance	Paste.		
Physical state	Not available.		
Form	Paste.		
	_		

Tan.

No data reported

Colour

Odour

Odour threshold	Not available.
рН	5 - 6
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 available.
Upper/lower flammability or exp	
Flammability limit - lower (%)	2.1 % estimated
Flammability limit - upper (%)	12.5 % estimated
Explosive limit - lower (%)	Not available.
Explosive limit – upper (%)	Not available.
Vapour pressure	45.25 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	
Density	0.97 g/cm3
Explosive properties	Not explosive.
Flammability class	Flammable IB estimated
Oxidising properties	Not oxidising.
Specific gravity	0.97
10. Stability and reactivity	1
Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
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 decomposition temperature. 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 exposure		
Inhalation	May cause irritation to the respiratory system.	
Skin contact	Causes skin irritation. May cause an allergic skin reaction.	
Eye contact	Causes serious eye damage.	
Ingestion	Expected to be a low ingestion hazard.	

Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.

Acute toxicity	Not known.		
Components	Species	Test Results	
2-(N,N-DIETHYLAMINO)ETHYL I	METHACRYLATE (CAS 105-16-6	3)	
Acute			
Oral	Det		
LD50	Rat	4696 mg/kg	
Ethylene glycol (CAS 107-21-1)			
<u>Acute</u> Dermal			
LD50	Rabbit	9530 mg/kg	
Aethyl methacrylate (CAS 80-62-			
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	Causes serious eye damage.		
rritation			
Respiratory or skin sensitisatio	n		
ACGIH sensitisation	• • • • • • •		
Methyl methacrylate (CA Canada - Alberta OELs: Irri	-	Dermal sensitisation	
Ethylene glycol (CAS 10		Irritant	
Methacrylic acid (CAS 7 Canada - Manitoba OFI s H	azard: Dermal sensitization	Irritant	
Methyl methacrylate (CA		Dermal sensitisation	
Canada - Quebec OELs: Sensitizer			
Methyl methacrylate (CA	•	Sensitiser.	
	ELs Hazard Data: Sensitiser	Oracitican	
Methyl methacrylate (CA		Sensitiser.	
Respiratory sensitisation Skin sensitisation	Not a respiratory sensitizer.	ction	
Germ cell mutagenicity		May cause an allergic skin reaction. No data available to indicate product or any components present at greater than 0.1% are	
John Cen malayemony	mutagenic or genotoxic.	reader of any components present at greater than 0.170 are	
Carcinogenicity			
ACGIH Carcinogens			
Ethylene glycol (CAS 10		A4 Not classifiable as a human carcinogen. A4 Not classifiable as a human carcinogen.	
Methyl methacrylate (CA			
Canada - Manitoba OELs: c Ethylene glycol (CAS 10		Not classifiable as a human carcinogen.	
Methyl methacrylate (CAS		Not classifiable as a human carcinogen.	
IARC Monographs. Overall	Evaluation of Carcinogenicity	-	
Methyl methacrylate (CA		3 Not classifiable as to carcinogenicity to humans.	
Reproductive toxicity		cause reproductive or developmental effects.	
Specific target organ toxicity - single exposure	May cause respiratory irritation	٦.	
Specific target organ toxicity - repeated exposure	Not classified.		

12. Ecological information		
Ecotoxicity	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.	
Persistence and degradability	No data is available on the degradability of any ingredients in the mixture.	
Bioaccumulative potential		
Partition coefficient n-octar	nol / water (log Kow)	
Ethylene glycol	-1.36	
Methacrylic acid	0.93	
Methyl methacrylate	1.38	
Mobility in soil	No data available.	
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.	
13. Disposal considerations		

-		
Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.	
Local disposal regulations	Dispose in accordance with all applicable regulations.	
Hazardous waste code	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
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
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Packing group	III
Environmental hazards	No.
ERG Code	3L
	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
Transport hazard class(es)	
Class	3
Subsidiary risk	
Packing group	III

Environmental hazards

Marine pollutant EmS

No. F-E, S-D Special precautions for user Read safety instructions, SDS and emergency procedures before handling. Not applicable. Not established.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

IATA; IMDG; TDG



15. Regulatory information

Canadian regulations	This product has been classified in accordance with the hazard crite contains all the information required by the HPR.	ria of the HPR and the SDS
Controlled Drugs and Su		
Not regulated.		
Export Control List (CEP	A 1999, Schedule 3)	
Not listed.		
Greenhouse Gases		
Not listed.		
Precursor Control Regula	ations	
Not regulated.		
ternational regulations		
Stockholm Convention		
Not applicable. Rotterdam Convention		
Not applicable. Kyoto Protocol		
Not applicable. Montreal Protocol		
Not applicable. Basel Convention		
Not applicable.		
nternational Inventories		
Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	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)	No
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No

Taiwan

Taiwan Chemical Substance Inventory (TCSI)

United States & Puerto Rico Toxic Substances Control Act (TSCA) Inventory

*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 informati	on
Issue date	26-April-2019
Revision date	25-January-2021
Version No.	04
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.