

# 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

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** 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 skin irritation. May cause an allergic skin reaction. Causes serious eye damage. 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. 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**

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. Immediately call a POISON CENTRE/doctor. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. In case of fire: Use appropriate media to extinguish.

<b>Storage</b>	Keep cool. Store in a well-ventilated place. Keep container tightly closed. Store locked up.
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Other hazards</b>	None known.
<b>Supplemental information</b>	None.

### 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-dimethylpropyl Phthalate		16883-83-3	3 - 7
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
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

<b>Inhalation</b>	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.
<b>Skin contact</b>	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.
<b>Eye contact</b>	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.
<b>Ingestion</b>	Rinse mouth. Get medical attention if symptoms occur.
<b>Most important symptoms/effects, acute and delayed</b>	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.
<b>Indication of immediate medical attention and special treatment needed</b>	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.
<b>General information</b>	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

<b>Suitable extinguishing media</b>	Water fog. Foam. Carbon dioxide (CO2). Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	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.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

<b>Fire fighting equipment/instructions</b>	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>General fire hazards</b>	Highly flammable liquid and vapour.

## 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	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 personal protection, see section 8 of the SDS.
<b>Methods and materials for containment and cleaning up</b>	<p>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.</p> <p>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.</p> <p>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.</p> <p>Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.</p>
<b>Environmental precautions</b>	Avoid discharge into drains, water courses or onto the ground. Use appropriate containment to avoid environmental contamination.

## 7. Handling and storage

<b>Precautions for safe handling</b>	<p>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.</p> <p>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".</p>
<b>Conditions for safe storage, including any incompatibilities</b>	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

	Type	Value
METHACRYLIC ACID (CAS 79-41-4)	TWA	20 ppm
METHYL METHACRYLATE (CAS 80-62-6)	STEL	100 ppm

**US. ACGIH Threshold Limit Values**

Components	Type	Value
	TWA	50 ppm

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

Components	Type	Value
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	Type	Value
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)**

Components	Type	Value
METHACRYLIC ACID (CAS 79-41-4)	TWA	20 ppm
METHYL METHACRYLATE (CAS 80-62-6)	STEL	100 ppm
	TWA	50 ppm

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

Components	Type	Value
METHACRYLIC ACID (CAS 79-41-4)	TWA	20 ppm
METHYL METHACRYLATE (CAS 80-62-6)	STEL	100 ppm
	TWA	50 ppm

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

Components	Type	Value
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 OELs (Occupational Health and Safety Regulations, 1996, Table 21)**

Components	Type	Value
METHACRYLIC ACID (CAS 79-41-4)	15 minute	30 ppm
	8 hour	20 ppm
METHYL METHACRYLATE (CAS 80-62-6)	15 minute	100 ppm

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

Components	Type	Value
	8 hour	50 ppm
Biological limit values	No biological exposure limits noted for the ingredient(s).	
Exposure guidelines	Occupational Exposure Limits are not relevant to the current physical form of the product.	
Appropriate engineering controls	Explosion-proof general and local exhaust ventilation. Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station and safety shower.	
Individual protection measures, such as personal protective equipment		
Eye/face protection	Wear safety glasses with side shields (or goggles) and a face shield.	
Skin protection		
Hand protection	Wear appropriate chemical resistant gloves.	
Other	Wear appropriate chemical resistant clothing.	
Respiratory protection	If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.	
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**

<b>Appearance</b>	Paste.
<b>Physical state</b>	Not available.
<b>Form</b>	Paste.
<b>Colour</b>	Tan.
<b>Odour</b>	No data reported
<b>Odour threshold</b>	Not available.
<b>pH</b>	5 - 6
<b>Melting point/freezing point</b>	-48 °C (-54.4 °F) estimated
<b>Initial boiling point and boiling range</b>	100.5 °C (212.9 °F) estimated
<b>Flash point</b>	10.0 °C (50.0 °F) estimated
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not available.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	2.1 % estimated
<b>Flammability limit - upper (%)</b>	12.5 % estimated
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapour pressure</b>	45.25 hPa estimated
<b>Vapour density</b>	Not available.
<b>Relative density</b>	Not available.
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	Not available.
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.

Material name: PLEXUS® MA2245 Adhesive

32245 Version #: 03 Revision date: 09-May-2019 Issue date: 26-April-2019

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<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.
<b>Other information</b>	
<b>Density</b>	0.97 g/cm3
<b>Explosive properties</b>	Not explosive.
<b>Flammability class</b>	Flammable IB estimated
<b>Oxidising properties</b>	Not oxidising.
<b>Specific gravity</b>	0.97

## 10. Stability and reactivity

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	Hazardous polymerisation does not occur.
<b>Conditions to avoid</b>	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
<b>Incompatible materials</b>	Strong oxidising agents. Nitrates. Peroxides.
<b>Hazardous decomposition products</b>	No hazardous decomposition products are known.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation</b>	May cause irritation to the respiratory system.
<b>Skin contact</b>	Causes skin irritation. May cause an allergic skin reaction.
<b>Eye contact</b>	Causes serious eye damage.
<b>Ingestion</b>	Expected to be a low ingestion hazard.

<b>Symptoms related to the physical, chemical and toxicological characteristics</b>	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.
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### Information on toxicological effects

<b>Acute toxicity</b>	Not known.
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<b>Components</b>	<b>Species</b>	<b>Test Results</b>
Methyl methacrylate (CAS 80-62-6)		
<b>Acute</b>		
<b>Inhalation</b>		
LC50	Mouse	18.5 mg/l, 2 Hours
<b>Oral</b>		
LD50	Rat	7800 mg/kg

<b>Skin corrosion/irritation</b>	Causes skin irritation.
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<b>Serious eye damage/eye irritation</b>	Causes serious eye damage.
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### Respiratory or skin sensitisation

#### ACGIH sensitisation

Methyl methacrylate (CAS 80-62-6)	Dermal sensitization
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#### Canada - Alberta OELs: Irritant

Methacrylic acid (CAS 79-41-4)	Irritant
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#### Canada - British Columbia OELs: Respiratory or skin sensitizer

Methyl methacrylate (CAS 80-62-6)	Capable of causing respiratory, dermal or conjunctival sensitization.
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#### Canada - Manitoba OELs Hazard: Dermal sensitization

Methyl methacrylate (CAS 80-62-6)	Dermal sensitization
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#### Canada - Quebec OELs: Sensitizer

Methyl methacrylate (CAS 80-62-6)	Sensitizer.
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**Canada - Saskatchewan OELs Hazard Data: Sensitiser**

Methyl methacrylate (CAS 80-62-6)

Sensitiser.

**Respiratory sensitisation** Not a respiratory sensitizer.**Skin sensitisation** May cause an allergic skin reaction.**Germ cell mutagenicity** No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.**Carcinogenicity****ACGIH Carcinogens**

Methyl methacrylate (CAS 80-62-6)

A4 Not classifiable as a human carcinogen.

**Canada - Manitoba OELs: carcinogenicity**

Methyl methacrylate (CAS 80-62-6)

Not classifiable as a human carcinogen.

**IARC Monographs. Overall Evaluation of Carcinogenicity**

Methyl methacrylate (CAS 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 irritation.**Specific target organ toxicity - repeated exposure** Not classified.**Aspiration hazard** Not an aspiration hazard.**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-octanol / water (log Kow)**

Methacrylic acid 0.93

Methyl methacrylate 1.38

**Mobility in soil** No data available.**Other adverse effects** The product contains volatile organic compounds which have a photochemical ozone creation potential.**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.**IATA****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**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**Transport hazard class(es)****Class** 3**Subsidiary risk** -**Packing group** III**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 Annex II of MARPOL 73/78 and the IBC Code** Not established. Not applicable.**IATA; IMDG; TDG****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)	No
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
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)	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**

<b>Issue date</b>	26-April-2019
<b>Revision date</b>	09-May-2019
<b>Version No.</b>	03
<b>Disclaimer</b>	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.
<b>Revision information</b>	Composition / Information on Ingredients: Disclosure Overrides