SAFETY DATA SHEET

1. Identification

1. Identification			
Product identifier	PLEXUS® MA425 Adhesiv	/e	
Other means of identification			
SKU#	IT150		
Recommended use	Not available.		
Recommended restrictions	None known.		
Manufacturer/Importer/Supplier	/Distributor information		
Manufacturer			
Company name	ITW Performance Polymers	6	
Address	30 Endicott Street		
	Danvers, MA 01923 United States		
Telephone	Customer Service	978-777-1100	
Website	www.itwperformancepolyme		
E-mail	Not available.		
Contact person	EHS Department		
Emergency phone number	Chemtrec	800-424-9300	
	International	703-527-3887	
2. Hazard(s) identification	1		
Physical hazards	Flammable liquids		Category 2
Health hazards	Acute toxicity, inhalation		Category 4
	Skin corrosion/irritation		Category 2
	Serious eye damage/eye in	ritation	Category 2A
	Sensitization, skin		Category 1A
	Specific target organ toxicit	y, single exposure	Category 3 respiratory tract irritation
Environmental hazards	Not classified.		
OSHA defined hazards	Not classified.		
Label elements			
Laber elements			
Signal word	Danger		
Hazard statement			in irritation. May cause an allergic skin reaction. ed. May cause respiratory irritation.
Precautionary statement			
Prevention			surfaces No smoking. Keep container tightly equipment. Use explosion-proof
	electrical/ventilating/lighting measures against static dis	g equipment. Use c charge. Wash tho minated work cloth	only non-sparking tools. Take precautionary roughly after handling. Use only outdoors or in a ing must not be allowed out of the workplace. Wear
Response	If on skin (or hair): Take off	immediately all co	ntaminated clothing. Rinse skin with water/shower.
	If inhaled: Remove person cautiously with water for se Continue rinsing. Call a poi medical advice/attention. If	to fresh air and kee veral minutes. Ren son center/doctor i eye irritation persis	ep comfortable for breathing. If in eyes: Rinse nove contact lenses, if present and easy to do. f you feel unwell. If skin irritation or rash occurs: Get sts: Get medical advice/attention. Take off

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

contaminated clothing and wash it before reuse. In case of fire: Use appropriate media to

Storage

Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and vapor. May cause flash fire or explosion.

None.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Methyl Methacrylate		80-62-6	60 - 80
METHACRYLIC ACID		79-41-4	1 - 2.5
Other components below reportable levels			20 - 40

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 center 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 media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Vapors may form explosive mixtures with air. Vapors 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 vapor.

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/vapors. 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.
	spinages cannot be contained. For personal protection, see section of the obo.

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/vapors. Avoid contact with eyes, skin, and clothing. 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 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).
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8. Exposure controls/personal protection

Occupational exposure limits

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)			
Components	Туре	Value	
Methyl Methacrylate (CAS 80-62-6)	PEL	410 mg/m3	
		100 ppm	
US. ACGIH Threshold Limit Values			
Components	Туре	Value	
METHACRYLIC ACID (CAS 79-41-4)	TWA	20 ppm	
Methyl Methacrylate (CAS 80-62-6)	STEL	100 ppm	
	TWA	50 ppm	
US. NIOSH: Pocket Guide to Chem	ical Hazards		
Components	Туре	Value	
METHACRYLIC ACID (CAS 79-41-4)	TWA	70 mg/m3	

US. NIOSH: Pocket Guide to Chemical Haz	zards
Components	Туре

Components	Туре	Value
		20 ppm
Methyl Methacrylate (CAS 80-62-6)	TWA	410 mg/m3
		100 ppm
Biological limit values	No biological exposu	e limits noted for the ingredient(s).
Exposure guidelines	Occupational Exposi	e Limits are not relevant to the current physical form of the product.
US - California OELs: Skin	designation	
METHACRYLIC ACID (0 US - Tennessee OELs: Skir	,	Can be absorbed through the skin.
METHACRYLIC ACID (C US NIOSH Pocket Guide to	CAS 79-41-4)	Can be absorbed through the skin.
METHACRYLIC ACID (0		Can be absorbed through the skin.
Appropriate engineering controls	Ventilation rates sho exhaust ventilation, o exposure limits. If ex	al and local exhaust ventilation. Good general ventilation should be used. Id be matched to conditions. If applicable, use process enclosures, local other engineering controls to maintain airborne levels below recommended osure limits have not been established, maintain airborne levels to an ide eyewash station and safety shower.
Individual protection measures	, such as personal pro	ective equipment
Eye/face protection	Chemical respirator	ith organic vapor cartridge and full facepiece.
Skin protection Hand protection	Wear appropriate ch	mical resistant gloves.
Other	Wear appropriate ch	mical resistant clothing.
Respiratory protection	Chemical respirator	ith organic vapor cartridge and full facepiece.
Thermal hazards	Wear appropriate the	mal protective clothing, when necessary.
General hygiene considerations	after handling the ma	noke. Always observe good personal hygiene measures, such as washing erial and before eating, drinking, and/or smoking. Routinely wash work e equipment to remove contaminants. Contaminated work clothing should not workplace.

9. Physical and chemical properties

a. Physical and chemical properties		
Appearance	Paste.	
Physical state	Liquid.	
Form	Paste.	
Color	Off-white.	
Odor	Fragrant	
Odor threshold	Not available.	
рН	Not available.	
Melting point/freezing point	-54.4 °F (-48 °C) estimated	
Initial boiling point and boiling range	212.9 °F (100.5 °C) estimated	
Flash point	50.0 °F (10.0 °C) estimated	
Evaporation rate	Not available.	
Flammability (solid, gas)	Not applicable.	
Upper/lower flammability or exp	losive limits	
Flammability limit - lower (%)	2.1 % estimated	
Flammability limit - upper (%)	12.5 % estimated	
Explosive limit - lower (%)	Not available.	
Explosive limit - upper (%)	Not available.	
Vapor pressure	51.33 hPa estimated	

Vapor 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	0.98 g/cm3 estimated
Explosive properties	Not explosive.
Flammability class	Flammable IB estimated
Oxidizing properties	Not oxidizing.
Specific gravity	0.98 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.
Possibility of hazardous reactions	Hazardous polymerization 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 oxidizing agents. Nitrates. Peroxides.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of 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 effects

Acute toxicity	Harmful if inhaled.	
Components	Species	Test Results
METHACRYLIC ACID (CA	AS 79-41-4)	
<u>Acute</u>		
Dermal		
LD50	Rabbit	500 mg/kg
Inhalation		
LC50	Rat	7.1 mg/l, 4 Hours
Oral		
LD50	Rat	1060 mg/kg
Methyl Methacrylate (CAS	80-62-6)	
Acute		
Inhalation		
LC50	Mouse	18.5 mg/l, 2 Hours

Components	Species	Test Results
Oral		
LD50	Rat	7800 mg/kg
Skin corrosion/irritation	Causes skin irritation.	
Serious eye damage/eye rritation	Causes serious eye irritation.	
Respiratory or skin sensitization	n	
ACGIH sensitization		
METHYL METHACRYLA	TE (CAS 80-62-6)	Dermal sensitization
Respiratory sensitization	Due to partial or complete lack	of data the classification is not possible.
Skin sensitization	May cause an allergic skin reaction.	
Germ cell mutagenicity	Due to partial or complete lack of data the classification is not possible.	
Carcinogenicity		of data the classification is not possible.
	Evaluation of Carcinogenicity	
Methyl Methacrylate (CA	÷ ,	3 Not classifiable as to carcinogenicity to humans. 001-1053)
Not listed. US. National Toxicology Pro Not listed.	ogram (NTP) Report on Carcin	ogens
Reproductive toxicity	Due to partial or complete last	of data the classification is not possible.
Specific target organ toxicity - single exposure	May cause respiratory irritation.	
Specific target organ toxicity - epeated exposure	Due to partial or complete lack of data the classification is not possible.	
Aspiration hazard	Due to partial or complete lack	of data the classification is not possible.
12. Ecological information	n	
Ecotoxicity		s 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-octar	nol / water (log Kow)	
METHACRYLIC ACID		0.93
Methyl Methacrylate	NI I	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	material under controlled conc containers. If discarded, this p	in sealed containers at licensed waste disposal site. Incinerate the litions in an approved incinerator. Do not incinerate sealed roduct is considered a RCRA ignitable waste, D001. Dispose of nce with local/regional/national/international regulations.
	Dispose in accordance with al	
_ocal disposal regulations		
	•	
	D001: Waste Flammable mate	erial with a flash point <140 F
Local disposal regulations Hazardous waste code Waste from residues / unused products	D001: Waste Flammable mate The waste code should be ass disposal company. Dispose of in accordance with	

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UN proper shipping name Transport hazard class(es)	Adhesives, containing a flammable liquid
Class	3
Subsidiary risk	-
Label(s)	3
Packing group	III Bead a fata instructions, ODO and an annual marchines hafter has dian
• •	• Read safety instructions, SDS and emergency procedures before handling.
Special provisions Packaging exceptions	B1, B52, IB3, T2, TP1 150
Packaging non bulk	173
Packaging bulk	242
ΙΑΤΑ	
UN number	UN1133
UN proper shipping name	Adhesives containing flammable liquid
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Packing group	
Environmental hazards ERG Code	No. 3l
	SE 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	111
Environmental hazards	
Marine pollutant	No. F-E. S-D
EmS Special precautions for user	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	

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15. Regulatory information **US** federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. US EPCRA (SARA Title III) Section 313 - Toxic Chemical: De minimis concentration Methyl Methacrylate (CAS 80-62-6) % 1.0 US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance Methyl Methacrylate (CAS 80-62-6) Listed. **Toxic Substances Control Act (TSCA)** TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D) Not regulated. CERCLA Hazardous Substance List (40 CFR 302.4) Methyl Methacrylate (CAS 80-62-6) Listed. SARA 304 Emergency release notification Not regulated. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053) Not listed. Superfund Amendments and Reauthorization Act of 1986 (SARA) SARA 302 Extremely hazardous substance Not listed. SARA 311/312 Hazardous Yes chemical **Classified hazard** Flammable (gases, aerosols, liquids, or solids) Acute toxicity (any route of exposure) categories Skin corrosion or irritation Serious eye damage or eye irritation Respiratory or skin sensitization Specific target organ toxicity (single or repeated exposure) Hazard not otherwise classified (HNOC) SARA 313 (TRI reporting) **Chemical name CAS** number % by wt. Methyl Methacrylate 80-62-6 60 - 80 Other federal regulations Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List Methyl Methacrylate (CAS 80-62-6) Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130) Not regulated. Contains component(s) regulated under the Safe Drinking Water Act. Safe Drinking Water Act (SDWA)

FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace

Methyl Methacrylate (CAS 80-62-6)

US state regulations

California Proposition 65



WARNING: This product can expose you to Ethylene Glycol, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Low priority

California Proposition 65 - CRT: Listed date/Developmental toxin

Ethylene Glycol (CAS 107-21-1)

Listed: June 19, 2015

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

Methyl Methacrylate (CAS 80-62-6)

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, including date of preparation or last revision

Issue date	06-19-2019
Revision date	04-28-2020
Version #	02
HMIS® ratings	Health: 2 Flammability: 3 Physical hazard: 0
NFPA ratings	Health: 2 Flammability: 3 Instability: 0
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.