## SAFETY DATA SHEET

## 1. Identification

Product identifier PLEXUS® MA1020 Adhesive

Other means of identification

SKU# IT225

Recommended use Not available.

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name ITW Performance Polymers

Address 30 Endicott Street

Danvers, MA 01923

**United States** 

**Telephone** Customer Service 978-777-1100

Website www.itwperformancepolymers.com

E-mail Not available.

Contact person EHS Department

Emergency phone number Chemtrec 800-424-9300

International 703-527-3887

## 2. Hazard(s) identification

Physical hazardsFlammable liquidsCategory 2Health hazardsSkin corrosion/irritationCategory 2Serious eye damage/eye irritationCategory 1Sensitization, skinCategory 1A

Specific target organ toxicity, single exposure Category 3 respiratory tract irritation

Environmental hazards Not classified.

OSHA defined hazards Not classified.

Label elements



Signal word Danger

Hazard statement Highly flammable liquid and vapor. Causes skin irritation. May cause an allergic skin reaction.

Causes serious eye damage. May cause respiratory irritation.

**Precautionary statement** 

Prevention Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly

closed. Ground/bond container and receiving equipment. Use explosion-proof

electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Avoid breathing mist/vapors. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Contaminated work clothing must not be allowed

out of the workplace. Wear protective gloves/eye protection/face protection.

**Response** If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

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 center/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.

**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.

Supplemental information

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

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Chemical name	Common name and synonyms	CAS number	%
Methyl Methacrylate		80-62-6	20 - 40
Vinyl Acetate Polymer		9003-20-7	20 - 40
Benzyl 3-isobutyryloxy-1-isopropyl-2,2-dim ethylpropyl Phthalate		16883-83-3	10 - 20
METHACRYLIC ACID		79-41-4	2.5 - 10
Poly(2-chloro-1,3-butadiene)		9010-98-4	2.5 - 10
Paraffin Wax	·	8002-74-2	1 - 2.5
Other components below reportable	elevels		10 - 20

#### 4. First-aid measures

Inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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 immediately.

Ingestion

Rinse mouth. Get medical attention if symptoms occur.

Most important

symptoms/effects, acute and delayed

Indication of immediate medical attention and special treatment needed

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.

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 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 General fire hazards Use standard firefighting procedures and consider the hazards of other involved materials.

Highly flammable liquid and vapor.

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## 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.

## 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. Do not get this material in contact with eyes. Avoid breathing mist/vapors. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. 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

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	Form	
METHACRYLIC ACID (CAS 79-41-4)	TWA	20 ppm		
Methyl Methacrylate (CAS 80-62-6)	STEL	100 ppm		
	TWA	50 ppm		
Paraffin Wax (CAS 8002-74-2)	TWA	2 mg/m3	Fume.	
US. NIOSH: Pocket Guide to Chem	ical Hazards			
Components	Type	Value	Form	
METHACRYLIC ACID (CAS 79-41-4)	TWA	70 mg/m3		
		20 ppm		
Methyl Methacrylate (CAS 80-62-6)	TWA	410 mg/m3		
		100 ppm		
		100 ppiii		

Biological limit values No biological exposure limits noted for the ingredient(s).

**Exposure guidelines** 

US - California OELs: Skin designation

METHACRYLIC ACID (CAS 79-41-4)

Can be absorbed through the skin.

**US - Tennessee OELs: Skin designation** 

METHACRYLIC ACID (CAS 79-41-4)

Can be absorbed through the skin.

**US NIOSH Pocket Guide to Chemical Hazards: Skin designation** 

METHACRYLIC ACID (CAS 79-41-4)

Can be absorbed through the skin.

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** Chemical respirator with organic vapor cartridge and full facepiece.

Skin protection

Hand protection Wear appropriate chemical resistant gloves.Other Wear appropriate chemical resistant clothing.

**Respiratory protection** Chemical respirator with organic vapor 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 Paste.
Physical state Liquid.
Form Paste.
Color Off-white
Odor Fragrant
Odor threshold Not available.
pH Not available.

Melting point/freezing point -54.4 °F (-48 °C) estimated Initial boiling point and boiling 212.9 °F (100.5 °C) estimated

range

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50.0 °F (10.0 °C) estimated Flash point

Not available. **Evaporation rate** Not applicable. Flammability (solid, gas) Upper/lower flammability or explosive limits

Flammability limit - lower

2.1 % estimated

Flammability limit - upper

(%)

12.5 % estimated

Not available. Explosive limit - lower (%) Explosive limit - upper (%) Not available.

37.23 hPa estimated Vapor pressure

Vapor density Not available. Relative density Not available.

Solubility(ies)

Solubility (water) **Partition coefficient** (n-octanol/water)

Not available. Not available.

**Auto-ignition temperature** Not available. **Decomposition temperature** Not available. Not available. **Viscosity** 

Other information

Density 0.99 g/cm3 estimated

**Explosive properties** Not explosive.

Flammability class Flammable IB estimated

**Oxidizing properties** Not oxidizing. Specific gravity 0.99 estimated

## 10. Stability and reactivity

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

**Chemical stability** Material is stable under normal conditions. Possibility of hazardous Hazardous polymerization 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 oxidizing agents. Nitrates. Peroxides. Hazardous decomposition No hazardous decomposition products are known.

products

reactions

# 11. Toxicological information

## Information on likely routes of exposure

Inhalation May cause irritation to the respiratory system. Prolonged inhalation may be harmful.

Skin contact Causes skin irritation. May cause an allergic skin reaction.

Eye contact Causes serious eye damage.

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Ingestion Expected to be a low ingestion hazard.

Symptoms related to the physical, chemical and toxicological characteristics 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

Information on toxicological effects

**Acute toxicity** Not known.

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**Test Results** Components **Species** 

METHACRYLIC ACID (CAS 79-41-4)

Acute 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

Oral

LD50 Rat 7800 mg/kg

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/eye

irritation

Causes serious eye damage.

Respiratory or skin sensitization

**ACGIH** sensitization

METHYL METHACRYLATE (CAS 80-62-6) Dermal sensitization

Not a respiratory sensitizer. Respiratory sensitization

Skin sensitization 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.

Not classifiable as to carcinogenicity to humans. Carcinogenicity

IARC Monographs. Overall Evaluation of Carcinogenicity

Methyl Methacrylate (CAS 80-62-6) 3 Not classifiable as to carcinogenicity to humans. Poly(2-chloro-1,3-butadiene) (CAS 9010-98-4) 3 Not classifiable as to carcinogenicity to humans. Vinyl Acetate Polymer (CAS 9003-20-7) 3 Not classifiable as to carcinogenicity to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

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.

Chronic effects Prolonged inhalation may be harmful.

12. Ecological information

The product is not classified as environmentally hazardous. However, this does not exclude the **Ecotoxicity** possibility that large or frequent spills can have a harmful or damaging effect on the environment.

No data is available on the degradability of any ingredients in the mixture.

Persistence and degradability Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

METHACRYLIC ACID 0.93 Methyl Methacrylate 1.38

No data available. Mobility in soil

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. Incinerate the

material under controlled conditions in an approved incinerator. Do not incinerate sealed containers. If discarded, this product is considered a RCRA ignitable waste, D001. 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 D001: Waste Flammable material with a flash point <140 F

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).

Since emptied containers may retain product residue, follow label warnings even after container is Contaminated packaging

emptied. Empty containers should be taken to an approved waste handling site for recycling or

disposal.

## 14. Transport information

DOT

UN1133 **UN** number

**UN** proper shipping name Transport hazard class(es) Adhesives, containing a flammable liquid

Class 3 Subsidiary risk Label(s) 3 Ш

Packing group

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

B1, B52, IB3, T2, TP1 Special provisions

Packaging exceptions 150 Packaging non bulk 173 242 Packaging bulk

IATA

**UN1133 UN** number

**UN proper shipping name** 

Adhesives containing flammable liquid

Transport hazard class(es) Class

3 Subsidiary risk Ш Packing group No. **Environmental hazards ERG Code** 3L

Other information

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Passenger and cargo

aircraft

**UN** number

Allowed with restrictions.

Cargo aircraft only Allowed with restrictions.

**IMDG** 

UN1133

**UN proper shipping name** 

ADHESIVES containing flammable liquid

Transport hazard class(es)

Class 3 Subsidiary risk Ш Packing group

**Environmental hazards** 

Marine pollutant No.

**EmS** F-E. S-D

Transport in bulk according to

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Not established. Annex II of MARPOL 73/78 and

the IBC Code

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IATA; IMDG



## 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

Listed.

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance

Methyl Methacrylate (CAS 80-62-6)

**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.

categories

SARA 311/312 Hazardous

**Classified hazard** 

Yes

chemical

Flammable (gases, aerosols, liquids, or solids)

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 nameCAS number% by wt.Methyl Methacrylate80-62-620 - 40

#### 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.

(SDWA)

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

Methyl Methacrylate (CAS 80-62-6) Low priority

#### **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.

#### 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)	Yes
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

Existing Chemicals List (ECL) Korea No New Zealand New Zealand Inventory Yes **Philippines** Philippine Inventory of Chemicals and Chemical Substances Nο

(PICCS)

Taiwan Chemical Substance Inventory (TCSI) Taiwan Yes United States & Puerto Rico Toxic Substances Control Act (TSCA) Inventory Yes

## 16. Other information, including date of preparation or last revision

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Health: 2 **HMIS®** ratings

Flammability: 3 Physical hazard: 0

Health: 2 **NFPA** ratings

Flammability: 3 Instability: 0

ITW Performance Polymers cannot anticipate all conditions under which this information and its Disclaimer

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.

This document has undergone significant changes and should be reviewed in its entirety. **Revision information** 

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<sup>\*</sup>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).