SAFETY DATA SHEETS

This SDS packet was issued with item:

072080604

N/A



MS002613 OPTIGLAZE MATERIAL SAFETY DATA SHEET

Page 1 of 5

SECTION 1 - SOURCE/IDENTITY/USE INFORMATION

DISTRIBUTOR

GC AMERICA INC. 3737 West 127th St. Alsip, Illinois, 60803 Telephone: 708-597-0900

Hours: Mon.- Fri. 8:00 am. - 5:00 pm. C.S.T.

Transportation Emergency Telephone No. 800-424-9300

COMMON NAME: Optiglaze
PRODUCT USE: Coating agent

SECTION 2 – COMPOSITION/DATA ON COMPONENTS

COMPONENT	C.A.S.	%
Multifunctional acrylate		50-60
Methyl methacrylate	80-62-6	30-40
Silica filler (amorphous, fumed)		10
Photo initiator		<1

SECTION 3 – HAZARDS IDENTIFICATION

Hazard description:





Irritant Highly flammable

INFORMATION PERTAINING TO PARTICULAR DANGERS FOR MAN AND ENVIRONMENT:

The product has to be labelled due to the calculation procedure of international guidelines.

 ${\it Highly flammable}.$

Irritating to respiratory system and skin. May cause sensitization by skin contact.

CLASSIFICATION SYSTEM:

NFPA RATINGS (SCALE 0 - 4)

Health = 1 Fire = 3 Reactivity = 0

HMIS-RATINGS (SCALE 0 - 4)

Health = 1 Fire = 3 Reactivity = 0

SECTION 4 – FIRST AID MEASURES

EMERGENCY FIRST AID PROCEDURES:

INHALATION: Supply fresh air and seek medical attention if symptoms develop.

INGESTION: If symptoms persist seek medical attention.

SKIN: Immediately wash with water and soap and rinse thoroughly. **EYES:** Rinse opened eye for several minutes under running water.

SECTION 5 – FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: CO₂, sand extinguishing powder. Do not use water.

FOR SAFETY REASONS UNSUITABLE EXTINGUISHING AGENTS: water, water with full jet

PROTECTIVE EQUIPMENT: No special measures required.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

PERSON-RELATED SAFETY PRECAUTIONS: Wear protective equipment. Keep unprotected persons away.

MEASURES FOR ENVIRONMENTAL PROTECTION: Prevent seepage into sewage system, workpits and cellars. Do not allow to enter sewers/ surface or ground water.

MEASURES FOR CLEANING/COLLECTING: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Ensure adequate ventilation. Do not flush with water or aqueous cleansing agents

SECTION 7 - HANDLING AND STORAGE

HANDLING:

INFORMATION FOR SAFE HANDLING: Ensure good ventilation/exhaustion at the workplace. Prevent formation of aerosols. **Information about protection against explosions and fires:** Keep ignition sources away - Do not smoke. Protect against electrostatic charges.

STORAGE:

REQUIREMENTS TO BE MET BY STOREROOMS AND RECEPTACLES: Store in a cool location.

INFORMATION ABOUT STORAGE IN ONE COMMON STORAGE FACILITY: Not required.

FURTHER INFORMATION ABOUT STORAGE CONDITIONS: Keep receptacle tightly sealed. Store in cool, dry conditions in well sealed receptacles.

SECTION 8 - CONTROL MEASURES

Components With Limit Values That Require Monitoring At The Workplace:

80-62-6 Methyl methacrylate		
PEL	410 mg/m³, 100 ppm	
REL	410 mg/m³, 100 ppm	
TLV	Short-term value: 410 mg/m ³ , 100 ppm	
	Long-term value: 205 mg/m³, 50 ppm	
	SEN	

PERSONAL PROTECTIVE EQUIPMENT:

GENERAL PROTECTIVE AND HYGIENIC MEASURES: Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Avoid contact with the skin. Avoid contact with the eyes and skin.

BREATHING EQUIPMENT: In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

PROTECTION OF HANDS:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/the chemical mixture.

MATERIAL OF GLOVES

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.

PENETRATION TIME OF GLOVE MATERIAL

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

EYE PROTECTION:



Tightly sealed goggles

SECTION 9- PHYSICAL AND CHEMICAL PROPERTIES

GENERAL INFORMATION

FORM: Fluid

COLOR: According to product specification

ODOR: Characteristic

CHANGE IN CONDITION

MELTING POINT/MELTING RANGE: $> 1350^{\circ}\text{C}$ BOILING POINT/BOILING RANGE: 101°C (214°F)FLASH POINT: 10°C (50°F)IGNITION TEMPERATURE: 370.0°C (698°F)

AUTO IGNITING: Product is not self igniting.

DANGER OF EXPLOSION: Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

EXPLOSION LIMITS: LOWER: 2.1 VOL %

UPPER: 12.5 VOL %

VAPOR PRESSURE AT 20°C (68°F): 47.0 HPA (35 MM HG)

DENSITY: Not determined

SOLUBILITY IN / MISCIBILITY WITH WATER: Soluble

SOLVENT CONTENT: ORGANIC SOLVENTS: 0.0 %

SOLIDS CONTENT: 61.0 %

SECTION 10- STABILITY AND REACTIVITY

THERMAL DECOMPOSITION / CONDITIONS TO BE AVOIDED: No decomposition if used according to specifications.

DANGEROUS REACTIONS: No dangerous reactions known.

DANGEROUS PRODUCTS OF DECOMPOSITION: No dangerous decomposition products known.

SECTION 11- TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:

PRIMARY IRRITANT EFFECT

SKIN: Irritant to skin and mucous membranes.

SENSITIZATION: Sensitization possible through skin contact.

ADDITIONAL TOXICOLOGICAL INFORMATION: The product shows the following dangers according to internally approved

calculation methods for preparations: Irritant

SECTION 12- ECOLOGICAL INFORMATION

GENERAL NOTES: Water hazard class 1 (self-assessment): slightly hazardous for water. Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

SECTION 13- DISPOSAL CONSIDERATIONS

PRODUCT:

RECOMMENDATION: Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

RECOMMENDATION: Disposal must be made according to official regulations.

SECTION 14- TRANSPORT INFORMATION

DOT REGULATIONS



HAZARD CLASS: 3

IDENTIFICATION NUMBER: UN1247

PACKING GROUP: II

PROPER SHIPPING NAME (TECHNICAL NAME): Methyl methacrylate monomer, stabilized, mixture

LABEL: 3

SECTION 14- TRANSPORT INFORMATION - cont'd

LAND TRANSPORT ADR/RID (CROSS-BORDER)



ADR/RID CLASS: 3 (F1) Flammable liquids

DANGER CODE (KEMLER): 339

UN-NUMBER: 1247
PACKAGING GROUP: II

LABEL: 3

DESCRIPTION OF GOODS: 1247 Methyl methacrylate monomer, stabilized, mixture

MARITIME TRANSPORT IMDG



IMDG CLASS: 3 UN NUMBER: 1247

LABEL: 3

PACKAGING GROUP: II EMS NUMBER: F-E,S-D MARINE POLLUTANT: No

PROPPER SHIPPING NAME: Methyl methacrylate monomer, stabilized, mixture

AIR TRANSPORT ICAO-TI AND IATA-DGR



ICAO/IATA CLASS: 3 UN/ID NUMBER: 1247

LABEL: 3

PACKAGING GROUP: II

PROPPER SHIPPING NAME: Methyl methacrylate monomer, stabilized, mixture

SECTION 15- REGULATIONS

SARA

SECTION 355 (EXTREMELY HAZARDOUS SUBSTANCES): None of the ingredient is listed. **SECTION 313 (SPECIFIC TOXIC CHEMICAL LISTINGS):** 80-62-6 Methyl Methacrylate **TSCA (TOXIC SUBSTANCES CONTROL ACT):**

80-62-6 Methyl Methacrylate 7631-86-9 Colloidal Silica

75980-60-8 2,4,6-Trimethylbenzoyldiphenylphosphineoxide

PROPOSITION 65

CHEMICALS KNOWN TO CAUSE CANCER: None of the ingredients is listed.

CHEMICALS KNOWN TO CAUSE REPRODUCTIVE TOXICITY FOR FEMALES: None of the ingredients is listed. CHEMICALS KNOWN TO CAUSE REPRODUCTIVE TOXICITY FOR MALES: None of the ingredients is listed. CHEMICALS KNOWN TO CAUSE DEVELOPMENTAL TOXICITY: None of the ingredients is listed.

CANCEROGENITY CATEGORIES

EPA (ENVIRONMENTAL PROTECTION AGENCY):

80-62-6 Methyl Methacrylate E;NL

IARC (INTERNATIONAL AGENCY FOR RESEARCH ON CANCER:

80-62-6 Methyl Methacrylate 3 7631-86-9 Colloidal Silica 3 NTP (NATIONAL TOXICOLOGY PROGRAM): None of the ingredients is listed.

SECTION 15- REGULATIONS - cont'd.

TLV (THRESHOLD LIMIT VALUE ESTABLISHED BY ACGIH): 80-62-6 METHYL METHACRYLATE A4 NIOSH-CA (NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH): None of the ingredients is listed. OSHA-CA (OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION): None of the ingredients is listed.

PRODUCT RELATED HAZARD INFORMATIONS: The product has been classified and marked in accordance with directives on hazardous materials.

HAZARD SYMBOLS:

Irritant

Highly flammable

HAZARD-DETERMINING COMPONENTS OF LABELLING: Methyl methacrylate

RISK PHRASES:

Highly flammable.

Irritating to respiratory system and skin.

May cause sensitization by skin contact.

SAFETY PHRASES:

Keep container in a well-ventilated place.

Keep away from sources of ignition - no smoking.

Do not breathe gas/fumes/vapour/spray.

Avoid contact with skin.

Wear suitable gloves.

This material and its container must be disposed of as hazardous waste.

SECTION 16- OTHER INFORMATION

DATE: 27 June 2012

The information herein is given in good faith but no warranty expressed or implied is made.

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Obtained by Global Safety Management, Inc. -Tel: 1-813-435-5161 - www.globalsafetynet.com



Printing date 04/21/2015

Version US-EN-Rev 1

Reviewed on 04/17/2015

1 Identification

· Product identifier

· Trade name: OPTIGLAZE

· Relevant identified uses of the substance or mixture and uses advised against

Dental material

The product is intended for professional use.

To avoid risks for humans and environment obtain instructions.

- · Application of the substance / the mixture Dental sealing material
- Details of the supplier of the safety data sheet
- · Manufacturer/Supplier:

GC America Inc. 3737 W. 127th Street Alsip, IL 60803 USA

sds@gcamerica.com

- · Information department: Regulatory Affairs
- · Emergency telephone number:

During normal opening times (Mon.-Fri. 8:00 AM-5:00 PM CST): +1 (708) 597-0900 Transportation (CHEMTREC®) Emergency Telephone No. +1 (800) 424-9300

2 Hazard(s) identification

· Classification of the substance or mixture

Flam. Liq. 2 H225 Highly flammable liquid and vapor.

Skin Irrit. 2 H315 Causes skin irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction.

STOT SE 3 H335 May cause respiratory irritation.

· Additional information:

The information provided is in regards to the toxicity and hazard rating(s) of the individual component(s) in the formulation. The associated risk(s) depends on the route(s) of exposure. The hazard rating system is based entirely on the existence of the risk(s) and does not take into account the likelihood of reduced risk(s) through proper usage and handling.

- · Label elements
- · GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

Hazard pictograms





GHS02 GHS07

- Signal word Danger
- Hazard-determining components of labeling: methyl methacrylate (MMA)

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· Hazard statements

Highly flammable liquid and vapor.

Causes skin irritation.

May cause an allergic skin reaction.

May cause respiratory irritation.

Precautionary statements

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

Wear protective gloves / eye protection / face protection.

Contaminated work clothing must not be allowed out of the workplace.

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

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

Additional information:

48 % of the mixture consists of component(s) of unknown toxicity.

- · Classification system:
- NFPA ratings (scale 0 4)



Health = 2 Fire = 3 Reactivity = 2

· HMIS-ratings (scale 0 - 4)



Health = 2Fire = 3Reactivity = 2

- Other hazards
- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- vPvB: Not applicable.

3 Composition/information on ingredients

- · Chemical characterization: Mixtures
- · Description: Mixture of the substances listed below with nonhazardous additions.

· Dangerous components:

	•	
80-62-6	methyl methacrylate (MMA)	25-50%
	photoinitiator**	1-5%

· Additional information:

If a substance is marked with **, then substance is a trade secret. This is allowed under OSHA's Hazard Communication Standard (HCS) as a trade secret and under GHS as Confidential Business Information (CBI).

4 First-aid measures

- · Description of first aid measures
- · General information:

Immediately remove any clothing soiled by the product.

If symptoms persist consult doctor.

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· After inhalation:

Supply fresh air; consult doctor in case of complaints.

In case of unconsciousness place patient stably in side position for transportation.

· After skin contact:

Immediately wash with water and soap and rinse thoroughly.

Seek medical treatment.

· After eye contact:

Rinse opened eye for several minutes under running water.

If symptoms persist consult doctor.

· After swallowing:

Rinse out mouth and then drink plenty of water.

If symptoms persist consult doctor.

- · Information for doctor:
- · Most important symptoms and effects, both acute and delayed Allergic reactions
- · Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5 Fire-fighting measures

- Extinguishing media
- Suitable extinguishing agents: CO2, sand, extinguishing powder. Do not use water.
- · For safety reasons unsuitable extinguishing agents: Water
- · Special hazards arising from the substance or mixture

Formation of toxic gases is possible during heating or in case of fire.

- Advice for firefighters
- · Protective equipment: Wear self-contained respiratory protective device.
- · Additional information

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures

Remove persons from danger area.

Keep away from ignition sources

Avoid contact with the eyes and skin.

Wear protective clothing.

· Environmental precautions:

Do not allow product to reach sewage system or any water course.

Do not allow to penetrate the ground/soil.

Methods and material for containment and cleaning up:

Ensure adequate ventilation.

Absorb liquid components with liquid-binding material.

Dispose of the collected material according to regulations.

· Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

US

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7 Handling and storage

- · Handling:
- · Precautions for safe handling

Observe instructions for use.

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

Avoid contact with the eyes and skin.

Information about protection against explosions and fires:

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Do not spray on a naked flame or any incandescent material.

- · Storage:
- · Requirements to be met by storerooms and receptacles:

Store in a cool location.

Store only in unopened original receptacles.

- Information about storage in one common storage facility: Store away from foodstuffs.
- · Further information about storage conditions:

Observe instructions for use / storage.

Keep receptacle tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

Protect from heat and direct sunlight.

Store in a cool place.

· Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- Additional information about design of technical systems: No further data; see item 7.
- · Control parameters
- · Components with limit values that require monitoring at the workplace:

80-62-6 methyl methacrylate (MMA)

PEL Long-term value: 410 mg/m³, 100 ppm
REL Long-term value: 410 mg/m³, 100 ppm
TLV Short-term value: 410 mg/m³, 100 ppm
Long-term value: 205 mg/m³, 50 ppm
(SEN) NIC-DSEN

- · Additional information: The lists that were valid during the creation were used as basis.
- · Exposure controls
- · Personal protective equipment:
- General protective and hygienic measures:

The usual precautionary measures for handling chemicals should be followed.

Avoid contact with the eyes and skin.

Wash hands before breaks and at the end of work.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

- · **Breathing equipment:** Suitable respiratory protective device recommended.
- · Protection of hands: Protective gloves
- · Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several

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Trade name: OPTIGLAZE

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substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection: Safety glasses

Information on basic physical and o	chemical properties
General Information Appearance:	
Form:	Fluid
Color:	According to product specification
Odor:	Characteristic
Odor threshold:	Not determined.
pH-value:	Not determined.
Change in condition	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	101 °C (214 °F)
Flash point:	10 °C (50 °F)
Flammability (solid, gaseous):	Not applicable.
Ignition temperature:	Undetermined.
Decomposition temperature:	Not determined.
Auto igniting:	Product is not selfigniting.
Danger of explosion:	Product is not explosive. However, formation of explosive a vapor mixtures are possible.
Explosion limits:	
Lower:	2.1 Vol %
Upper:	12.5 Vol %
Vapor pressure:	Not determined.
Density:	Not determined.
Relative density	Not determined.
Vapour density	Not determined.
Evaporation rate	Not determined.
Solubility in / Miscibility with	
Water:	Insoluble.
Partition coefficient (n-octanol/wate	er): Not determined.
Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.

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		(Contd. of page 5
· Solvent content:		
Organic solvents:	0.0 %	
Solids content:	61.0 %	
Other information	No further relevant information available.	

10 Stability and reactivity

- · Reactivity No further relevant information available.
- · Chemical stability Stable at ambient temperature.
- · Thermal decomposition / conditions to be avoided:
- No decomposition if used according to specifications.
- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:
- · LD/LC50 values that are relevant for classification: No further relevant information available.
- · Primary irritant effect:
- on the skin: Irritant to skin and mucous membranes.
- · on the eye: No irritating effect.
- · Sensitization: Sensitization possible through skin contact.
- · Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations:

İrritant

Carcinogenic categories

· IARC (International Agency for Research on Cancer)	
methyl methacrylate (MMA)	3
silicon dioxide	3
· NTP (National Toxicology Program)	
None of the ingredients is listed.	
· OSHA-Ca (Occupational Safety & Health Administration)	
None of the ingredients is listed.	
. Carainagania astagarias' lagand	

Carcinogenic categories' legend:

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IARC Group 1: The agent is carcinogenic to humans.

IARC Group 2A: The agent is probably carcinogenic to humans. IARC Group 2B: The agent is possibly carcinogenic to humans.

IARC Group 3: The agent is not classifiable as to its carcinogenicity to humans.

IARC Group 4: The agent is probably not carcinogenic to humans.

NTP K: Known to be human carcinogen.

NTP R: Reasonably anticipated to be human carcinogen.

12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- Additional ecological information:
- · General notes:

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- vPvB: Not applicable.
- Other adverse effects No further relevant information available.

13 Disposal considerations

- · Waste treatment methods
- · Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- Uncleaned packagings:
- · **Recommendation:** Disposal must be made according to official regulations.

14 Transport information		
· UN-Number · DOT, ADR, IMDG, IATA	UN1247	
UN proper shipping name		
·DOT	Methyl methacrylate monomer, stabilized solution	
· ADR	1247 Methyl methacrylate monomer, stabilized solution	
· IMDG, IATA	METHYL METHACRYLATE MONOMER, STABILIZED solution	
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(Contd. of page 7) · Transport hazard class(es) · DOT · Class 3 Flammable liquids · Label · ADR · Class 3 (F1) Flammable liquids · Label · IMDG, IATA · Class 3 Flammable liquids · Label 3 · Packing group · DOT, ADR, IMDG, IATA Ш · Environmental hazards: · Marine pollutant: No · Special precautions for user Warning: Flammable liquids Danger code (Kemler): 339 · EMS Number: F-E,S-D · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable. · Transport/Additional information: Code: E2 Excepted quantities (EQ) Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml · IMDG · Limited quantities (LQ) 1L · Excepted quantities (EQ) Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml (Contd. on page 9)

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· UN "Model Regulation": UN1247, Methyl methacrylate monomer, stabilized

solution, 3, II

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture
- SARA (Superfund Amendments and Reauthorization Act)
- · Section 355 (extremely hazardous substances):

None of the ingredient is listed.

Section 313 (Specific toxic chemical listings):

methyl methacrylate (MMA)

· TSCA (Toxic Substances Control Act):

All ingredients are listed.

· Carcinogenic categories

· EPA (Environmental Protection Agency)

methyl methacrylate (MMA)

E, NL

TLV (Threshold Limit Value established by ACGIH)

methyl methacrylate (MMA)

A4

· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

· GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

· Hazard pictograms





GHS02 GHS07

- · Signal word Danger
- Hazard-determining components of labeling:

methyl methacrylate (MMA)

· Hazard statements

Highly flammable liquid and vapor.

Causes skin irritation.

May cause an allergic skin reaction.

May cause respiratory irritation.

· Precautionary statements

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

Wear protective gloves / eye protection / face protection.

Contaminated work clothing must not be allowed out of the workplace.

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

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

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Trade name: OPTIGLAZE

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· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

Department issuing SDS: Regulatory Affairs

· Contact:

Regulatory Affairs

Telephone No. +1 (708) 597-0900

sds@gcamerica.com

· Date of preparation / last revision 04/21/2015 / -

· Abbreviations and acronyms:

GHS: Globally Harmonized System of Classification and Labelling of Chemicals HCS: Hazard Communication Standard (USA)

MSDS: Material Safety Data Sheet

SDS: Safety Data Sheet

ECHA: European Chemicals Agency

OSHA: Occupational Safety and Health Administration (USA)

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the

International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 2: Flammable liquids, Hazard Category 2

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Skin Sens. 1: Sensitisation - Skin, Hazard Category 1

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

Sources

- Manufacturers' MSDSs/SDSs
- OSHA (https://www.osha.gov/dts/chemicalsampling/toc/chmcas.html)
- TOXNET (http://toxnet.nlm.nih.gov/)
- ECHA (http://echa.europa.eu/)
- EnviChem (www.echemportal.org)

· Notes:

CAS Registry Number is a Registered Trademark of the American Chemical Society. CHEMTREC® is a registered service mark of the American Chemistry Council, Inc.

* Data compared to the previous version altered. This version replaces all previous versions.

· Disclaimer:

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