

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name TransOptic
Product Code(s) 20-3400-080
(M)SDS Number 1339940_A

Other means of identification

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended Use Laboratory Use Only
Uses advised against No information available

Details of the supplier of the safety data sheet

Manufacturer Buehler
Manufacturer Address 41 Waukegan Rd
Lake Bluff, IL 60044
www.buehler.com
Phone number +1 847 295 6500
E-mail Address custserv@buehler.com

Emergency telephone number

Global Access Code: 334545
Americas: +1 760 476 3962 Asia Pacific: +1 760 476 3960
Middle East/Africa: +1 760 476 3959 Europe: +1 760 476 3961

2. HAZARDS IDENTIFICATION

Classification

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

GHS Label elements, including precautionary statements

Emergency Overview

The product contains no substances which at their given concentration, are considered to be hazardous to health.

Appearance White

Physical state Pellets

Odor Characteristic

Precautionary Statements - Prevention

Obtain special instructions before use

Precautionary Statements - Response

None

Precautionary Statements - Storage

None

Precautionary Statements - Disposal

None

Hazards not otherwise classified (HNOC)

Not applicable

Other information

No information available

Interactions with Other Chemicals

No information available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No.	Weight-%	Trade Secret
Poly (methyl methacrylate)	9011-14-7	> 99%	*
Methyl Methacrylate	80-62-6	< 1%	*
Water	7732-18-5	< 1%	*

*The exact percentage (concentration) of composition has been withheld as a trade secret

4. FIRST AID MEASURES

First aid measures

Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Skin contact	Wash skin with soap and water.
Inhalation	Remove to fresh air.
Ingestion	Rinse mouth immediately and drink plenty of water.

Most important symptoms and effects, both acute and delayed

Most Important Symptoms and No information available.

Effects**Indication of any immediate medical attention and special treatment needed**

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES**Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media

CAUTION: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the chemical

Product is or contains a sensitizer. May cause sensitization by skin contact.

Uniform Fire Code Sensitizer: Solid

Explosion Data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures**

Personal precautions Ensure adequate ventilation.

Environmental precautions

Environmental precautions See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse.

Conditions for safe storage, including any incompatibilities

Storage Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up. Keep out of the reach of children.

Incompatible Products None known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines The following ingredients are the only ingredients of the product above the cut-off level (or level that contributes to the hazard classification of the mixture) which have an exposure limit applicable in the region for which this safety data sheet is intended or other recommended limit. At this time, the other relevant constituents have no known exposure limits from the sources listed here

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Methyl Methacrylate 80-62-6	STEL: 100 ppm TWA: 50 ppm	TWA: 100 ppm TWA: 410 mg/m ³ (vacated) TWA: 100 ppm (vacated) TWA: 410 mg/m ³	IDLH: 1000 ppm TWA: 100 ppm TWA: 410 mg/m ³

ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits NIOSH IDLH Immediately Dangerous to Life or Health

Other Exposure Guidelines Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992)

Appropriate engineering controls

Engineering Measures Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin and body protection Wear protective gloves and protective clothing.

Respiratory protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

Physical state	Pellets	Odor	Characteristic
Appearance	White	Odor Threshold	No information available
Color	No information available		

Property	Values	Remarks	Method
pH	No data available	None known	
Melting / freezing point	150-230°C	None known	
Boiling point / boiling range	No data available	None known	
Flash Point	No data available	None known	
Evaporation Rate	No data available	None known	
Flammability (solid, gas)	No data available	None known	
Flammability Limit in Air			
Upper flammability limit	No data available		
Lower flammability limit	No data available		
Vapor pressure	No data available	None known	
Vapor density	No data available	None known	
Specific Gravity	1.18	None known	
Water Solubility	Negligible		
Solubility in other solvents	No data available	None known	
Partition coefficient: n-octanol/water	No data available	None known	
Autoignition temperature	No data available	None known	
Decomposition temperature	No data available	None known	
Kinematic viscosity	No data available	None known	
Dynamic viscosity	No data available	None known	
Explosive properties	No data available		
Oxidizing properties	No data available		

Other Information

Softening Point	No data available
VOC Content (%)	Not applicable
Particle Size	No data available
Particle Size Distribution	

10. STABILITY AND REACTIVITY

Reactivity

No data available.

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

None known based on information supplied.

Incompatible materials

None known based on information supplied.

Hazardous Decomposition Products

None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation	Specific test data for the substance or mixture is not available.
Eye contact	Specific test data for the substance or mixture is not available.
Skin contact	Specific test data for the substance or mixture is not available.
Ingestion	Specific test data for the substance or mixture is not available.

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Methyl Methacrylate 80-62-6	= 7900 mg/kg (Rat) = 7872 mg/kg (Rat)	> 5 g/kg (Rabbit)	= 4632 ppm (Rat) 4 h
Water 7732-18-5	> 90 mL/kg (Rat)	-	-

Information on toxicological effects

Symptoms Itching. Rashes. Hives.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization May cause sensitization in susceptible persons. May cause sensitization by skin contact.

Mutagenic Effects No information available.

Carcinogenicity Contains no ingredient listed as a carcinogen.

Chemical name	ACGIH	IARC	NTP	OSHA
Poly (methyl methacrylate) 9011-14-7		Group 3		
Methyl Methacrylate 80-62-6		Group 3		

*IARC (International Agency for Research on Cancer)
Group 3 - Not Classifiable as to Carcinogenicity in Humans*

Reproductive toxicity No information available.

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Chronic Toxicity Carcinogenic potential is unknown.

Target Organ Effects Skin. Eyes. Respiratory system.

Aspiration Hazard No information available.

Numerical measures of toxicity Product Information

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)

13,776.00 mg/kg

ATEmix (dermal)

8,750.00 mg/kg (ATE)

ATEmix (inhalation-vapor)

50.82 ATEmix

12. ECOLOGICAL INFORMATION

Ecotoxicity

The environmental impact of this product has not been fully investigated.

Chemical name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Methyl Methacrylate 80-62-6	96h EC50: = 170 mg/L (Pseudokirchneriella subcapitata)	96h LC50: 243 - 275 mg/L (Pimephales promelas) 96h LC50: 125.5 - 190.7 mg/L (Pimephales promelas) 96h LC50: 153.9 - 341.8 mg/L (Lepomis macrochirus) 96h LC50: > 79 mg/L (Oncorhynchus mykiss) 96h LC50: 170 - 206 mg/L (Lepomis macrochirus) 96h LC50: 326.4 - 426.9 mg/L (Poecilia reticulata)		48h EC50: = 69 mg/L

Persistence and Degradability

No information available.

Bioaccumulation

Chemical name	Log Pow
Methyl Methacrylate 80-62-6	0.7

Other adverse effects

No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal methods	This material, as supplied, is a hazardous waste according to federal regulations (40 CFR 261).
Contaminated Packaging	Dispose of contents/containers in accordance with local regulations.
US EPA Waste Number	U162

This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical name	California Hazardous Waste
Methyl Methacrylate 80-62-6	Toxic Ignitable

14. TRANSPORT INFORMATION

<u>DOT</u>	NOT REGULATED
Proper Shipping Name	NON REGULATED
Hazard Class	N/A
<u>TDG</u>	NOT REGULATED
<u>MEX</u>	NOT REGULATED
<u>ICAO</u>	NOT REGULATED
<u>IATA</u>	NOT REGULATED
Proper Shipping Name	NON REGULATED
<u>IMDG/IMO</u>	NOT REGULATED
<u>RID</u>	NOT REGULATED
<u>ADR</u>	NOT REGULATED
<u>ADN</u>	NOT REGULATED

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL	All components are listed either on the DSL or NDSL.

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute Health Hazard	No
Chronic Health Hazard	No
Fire Hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Methyl Methacrylate 80-62-6	1000 lb			X

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
Methyl Methacrylate 80-62-6	1000 lb		RQ 1000 lb final RQ RQ 454 kg final RQ

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania	Rhode Island	Illinois
Methyl Methacrylate 80-62-6	X	X	X	X	X

International Regulations

Mexico

National occupational exposure limits

Component	Carcinogen Status	Exposure Limits
Methyl Methacrylate 80-62-6 (< 1%)		Mexico: TWA 100 ppm Mexico: TWA 410 mg/m ³ Mexico: STEL 125 ppm Mexico: STEL 510 mg/m ³

Mexico - Occupational Exposure Limits - Carcinogens

Canada

WHMIS Hazard Class

Not determined

16. OTHER INFORMATION

NFPA	Health Hazards 0	Flammability 1	Instability 0	Physical and Chemical Hazards - Personal Protection X
HMIS	Health Hazards 0	Flammability 1	Physical Hazard 0	

Prepared By Product Stewardship

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	Latham, NY 12110
	1-800-572-6501
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Disclaimer

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End of Safety Data Sheet