

SAFETY DATA SHEETS

This SDS packet was issued with item:

071419290

The safety data sheets (SDS) in this packet apply to the individual products listed below. Please refer to invoice for specific item number(s).

071357789 071419787 071420272

The safety data sheets (SDS) in this packet apply to one or more components included in the items listed below. Items listed below may require one or more SDS. Please refer to invoice for specific item number(s).

071363159 071422609 071422617 272467249 273017349 273021800

MATERIAL SAFETY DATA SHEET

HARRY J. BOSWORTH COMPANY
7227 North Hamlin Avenue
Skokie, Illinois 60076-3999
Information Phone: 847.679.3400
Emergency Phone: 800.535.5053

N F P A	HAZARD RATING		
	4 - EXTREME		
	3 - HIGH		
	2 - MODERATE		
	1 - SLIGHT		
	0 - INSIGNIFICANT		

PRODUCT: Duz All™ Liquid

DATE PREPARED: 3/24/11

HAZARDOUS COMPONENTS	
INGREDIENTS 1. Methyl Methacrylate, stabilized 2. N,N-Dimethy-p-toluidine	PERCENTAGE 1. > 95% 2. < 5%
COMMON NAMES AND SYNONYMS 1. Methacrylic Acid, Methyl-Ester 2. Accelerator	CAS NUMBER 1. 80-62-6 2. 99-97-8
PEL 1. 100 ppm TWA 2. N/E	UN NUMBER 1. UN 1247 2. UN 2810
TLV 1. 50 ppm TWA 2. N/E	

PHYSICAL/CHEMICAL CHARACTERISTICS	
BOILING POINT 216°F	pH N/D
SPECIFIC GRAVITY 0.944g/ml @ 20°C	VAPOR DENSITY 3.5 (Air = 1)
VAPOR PRESSURE 29mmHg @ 68°F (20°C)	EVAPORATION RATE 3 (Butyl Acetate = 1)
APPEARANCE/ODOR Colorless to very slight yellow liquid with acrid acrylic odor.	SOLUBILITY IN WATER 1.5 WT%

REACTIVITY DATA
STABILITY Unstable with heat.
CONDITIONS TO AVOID Avoid heat and ignition source, storage in inert atmosphere, and contamination with foreign materials.
HAZARDOUS DECOMPOSITION PRODUCTS Reducing and oxidizing agents. Material has strong action. Can soften paint and rubber.
HAZARDOUS POLYMERIZATION May occur.
CONDITIONS TO AVOID Excessive heat, oxidizing and reducing agent. Store in absence of inhibitor. Inadvertent addition of catalyst.

FIRE AND EXPLOSION HAZARD DATA	
FLASH POINT 50°F (10°C)	LIMITS LEL 2.1 UEL 12.5
EXTINGUISHING MEDIA Foam, dry chemical, and water spray by trained personnel.	
SPECIAL FIREFIGHTING PROCEDURES Keep personnel removed and upwind of fire. Wear self-contained breathing apparatus. Wear full protective equipment. Cool container with water spray. Fight fire from a distance, heat may rupture containers.	
UNUSUAL FIRE AND EXPLOSION HAZARDS Vapors are uninhibited, may form polymers in vents or flame arresters, resulting in stoppage of vents.	

HEALTH HAZARD DATA	
CARCINOGENICITY N/A	NTP N/A
IARC N/A	OSHA REGULATED N/A

EMERGENCY & FIRST AID PROCEDURES
TREATMENT FOR EYE CONTACT Flush eyes for 15 minutes contact physician.
TREATMENT FOR SKIN CONTACT Wash skin with soap and water. Seek medical attention if irritation persists.
TREATMENT FOR INHALATION (BREATHING) Remove person to fresh air. If not breathing give artificial respiration or oxygen. Call physician.
TREATMENT FOR INGESTION (SWALLOWING) Do not induce vomiting. Drink water. If person is unconscious, do not give anything. Call a physician.

EFFECTS & HAZARDS OF OVEREXPOSURE (ACUTE & CHRONIC)
EFFECTS & HAZARDS OF EYE CONTACT May cause eye irritation or cause cornea injury.
EFFECTS & HAZARDS OF SKIN CONTACT Skin irritation, potential skin sensitizer. May cause the formation of methemoglobin.
EFFECTS AND HAZARD OF INHALATION (BREATHING) Eye, nose and throat irritation, headache or dizziness.
EFFECTS & HAZARDS OF INGESTION (SWALLOWING) Seek medical attention immediately.
OTHER REGULATORY INFORMATION California Proposition 65 Warning: This product may contain a chemical known to the state of California to cause cancer or reproductive toxicity.

PRECAUTIONS FOR SAFE HANDLING & USE
STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED Remove personnel, source of fire, ventilate area, wear self contained apparatus and soak up spill with absorbent material.
WASTE DISPOSAL METHOD Dispose of in accordance with local, state and federal regulations. This material should NOT be allowed to drain to sewers. Incinerate liquid in proper containers. Absorbed materials can be landfilled according to prevailing regulation. Biological digestion can be considered.
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE Store in a cool place, away from sunlight and heat. Maintain air space inside container. Keep container tightly closed.
OTHER PRECAUTIONS This product is for professional use only as stated in directions. It is the responsibility of the dentist to train personnel.

CONTROL MEASURES
RESPIRATORY PROTECTION NIOSH/MSDA approved air purifying respirator with an organic vapor cartridge may be used.
VENTILATION LOCAL EXHAUST VENTILATION To keep sufficient vapor concentration under 100 ppm per 8 hours.
SPECIAL VENTILATION None
MECHANICAL (GENERAL) VENTILATION None
OTHER VENTILATION Open window if necessary.
PROTECTION GLOVES Impervious gloves - Neoprene or Nitrile gloves.
EYE PROTECTION Safety glasses.
OTHER PROTECTIVE EQUIPMENT Eyewash, lab coat.
WORK & HYGIENIC PRACTICES Wash hands before eating and smoking.

ADDITIONAL INFORMATION	
This MSDS was prepared in accordance with the requirements of the OSHA Hazard Communication Standard (29CFR 1910.1200) and is to be used only for this product. The information contained in this sheet is, to the best of our knowledge, believed to be accurate.	
HEALTH HAZARD INDEX	RATINGS
SEVERE HAZARD	1
SERIOUS HAZARD	2
MODERATE HAZARD	3
SLIGHT HAZARD	4
MINIMUM HAZARD	5
SHIPPING INFORMATION	
REGULATED IATA N/A	
PROPER SHIPPING NAME Methyl Methacrylate Monomer - Inhibited	
HAZARD CLASS 3	
IDENTIFICATION NUMBER UN 1247	
PACKAGING GROUP II	
LABEL Flammable Liquid	

To the best of our knowledge, the information contained herein is accurate. However, the Harry J. Bosworth Company and its agents do not warrant the accuracy of the information contained herein. The determination of suitability of any material is the sole responsibility of the user. All materials may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Obtained by Global Safety Management, www.globalsafety.net.com, (877) 683-7460

SAFETY DATA SHEET

NAME OF PRODUCT: SUPERPASTE™ Base Paste

FILE NO.: SDS851

SDS DATE: 06/19/2014

SECTION 1: IDENTIFICATION

PRODUCT NAME: SUPERPASTE Base Paste
PRODUCT CODES: 0921850, 0921851
IDENTIFIED USES: Dentistry
USES ADVISED AGAINST: Non-dental use
MANUFACTURER: Harry J. Bosworth Company
ADDRESS: 7227 North Hamlin Avenue, Skokie, Illinois 60076-3999, USA
TELEPHONE: 847-679-3400
FAX: 847-679-2080
EMAIL: hjbinfo@bosworth.com
EMERGENCY PHONE: 800-535-5053 (US and Canada)
 352-323-3500 (International)

SECTION 2: HAZARDS IDENTIFICATION

CLASSIFICATION: Acute aquatic toxicity (Category 1)
 Chronic aquatic toxicity (Category 1)
LABELING: FDA regulated device - exempt from Regulation (US) 29 CFR 1910.1200.
PICTOGRAM:



SIGNAL WORD: Warning
HAZARD STATEMENTS: H410 Very toxic to aquatic life with long lasting effects.
PRECAUTIONARY STATEMENTS: P201 Obtain special instructions before use.
 P202 Do not handle until all safety precautions have been read and understood.
 P234 Keep only in original container.
 P235+P410 Keep cool. Protect from sunlight.
 P261 Avoid breathing dust/fume/gas/mist/vapors/spray.
 P264 Wash thoroughly after handling.
 P270 Do not eat, drink or smoke when using this product.
 P273 Avoid release to the environment.
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
 P301+P330 IF SWALLOWED: Rinse mouth.
 P302+P352 IF ON SKIN: Wash with plenty of soap and water.
 P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P308+P313 IF exposed or concerned: Get medical advice/attention.
 P332+P313 If skin irritation occurs: Get medical advice/attention.
 P337+P313 If eye irritation persists: Get medical advice/attention.
 P342+P313 If experiencing respiratory symptoms: Get medical advice/attention.
 P391 Collect spillage.
 P402 Store in a dry place.
 P403+P233 Store in a well-ventilated place. Keep container tightly closed.
 P501 Dispose of contents/container to an approved waste disposal plant.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENT	CAS NO.	%WT	OSHA PEL - TWA	ACGIH TLV - TWA	CLASSIFICATION
Zinc Oxide	1314-13-2	75-90	10 mg/m ³ (T); 5 mg/m ³ (R)	2 mg/m ³ (R)	Aquatic Acute 1; Aquatic Chronic 1; H410

For full text of H-statements mentioned in this section, see section 16.

SECTION 4: FIRST-AID MEASURES

INHALATION: Move person into fresh air. If not breathing, give artificial respiration. If symptoms persist, get medical attention.
SKIN: Wash off with soap and plenty of water. Get medical attention if irritation develops and persists.
EYE: Rinse thoroughly with plenty of water for at least 15 minutes. Get medical attention if irritation develops and persists.
INGESTION: Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

SECTION 5: FIRE-FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA: Water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of carbon and zinc.
SPECIAL HAZARDS: No further relevant information available.
ADVICE FOR FIREFIGHTERS: Wear self contained breathing apparatus for firefighting if necessary.

SECTION 6: ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.
ENVIRONMENTAL PRECAUTIONS: Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.
CONTAINMENT AND CLEANUP: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Place in suitable, closed container for disposal according to official regulations.

SECTION 7: HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: Product is intended for dental use only. Handling of this product should be by trained dental healthcare professionals only. Observe normal care for working with chemicals. Avoid contact with the eyes and skin. Avoid inhalation of vapor or mist. Keep away from foodstuffs, beverages and animal feed.
CONDITIONS FOR SAFE STORAGE: Store only in the original package. Keep container tightly sealed in a dry and well-ventilated place. Protect from heat and direct sunlight. Store away from food and beverages.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Handle in accordance with good industrial hygiene and safety practice. Use with adequate general or local exhaust ventilation to maintain exposure levels below the occupational exposure limits. Local exhaust ventilation is preferred since it prevents contamination dispersion into the work area by controlling it at its source. Provide eyewash and safety shower if contact or splash hazard exists. Wash hands before breaks and at the end of work.
EYE/FACE PROTECTION: Safety glasses.
SKIN PROTECTION: Glove material impermeable and resistant to the product.
BODY PROTECTION: Protective work clothing.
RESPIRATORY PROTECTION: NIOSH (US) or CEN (EU) approved respirators and components.
ENVIRONMENTAL EXPOSURE: Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE/COLOR: White Paste
ODOR: Characteristic
MELTING POINT: 3587°F (1975°C)
RELATIVE DENSITY (H₂O=1.0): 5.00 g/cm³
WATER SOLUBILITY: Not soluble

SECTION 10: STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable under recommended storage conditions.
HAZARDOUS REACTIONS: Will not occur.
CONDITIONS TO AVOID: Heat.
INCOMPATIBLE MATERIALS: Strong oxidizing agents.
HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of carbon and zinc.

SECTION 11: TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS:
EYES: May cause eye irritation with redness, tearing and stinging.
SKIN: May cause skin irritation with redness, swelling and itching. Prolonged skin contact can produce a severe dermatitis called oxide pox.
INGESTION: May cause mucous membrane and gastrointestinal irritation with nausea, vomiting and diarrhea.
INHALATION: No health effects expected. Vapors generated at high temperature may result in respiratory track irritation.

SAFETY DATA SHEET

FILE NO.: SDS851

NAME OF PRODUCT: SUPERPASTE™ Base Paste

SDS DATE: 06/19/2014

CARCINOGENICITY:

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or possible carcinogen by OSHA.**ACGIH:** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.**NTP:** No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.**IARC:** No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.**SECTION 12: ECOLOGICAL INFORMATION**

ADVERSE EFFECTS:

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic life with long lasting effects. Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

PRODUCT:

Offer surplus and non-recyclable solutions to a licensed disposal company. Must not be disposed of together with household garbage. Do not allow product to reach sewage system. Disposal must be made according to official regulations.

CONTAMINATED PACKAGING:

Dispose of as unused product.

SECTION 14: TRANSPORT INFORMATION

UN NUMBER:

N/A

PROPER SHIPPING NAME:

N/A

HAZARD CLASS:

N/A

PACKING GROUP:

N/A

LABEL STATEMENT:

N/A

SECTION 15: REGULATORY INFORMATION**US FEDERAL REGULATIONS**

TSCA

This product is an FDA regulated device and not subject to TSCA regulations.

CERCLA

This product is an FDA regulated device and not subject to reporting requirements. There may be specific reporting requirements at the local, regional, or state level.

SARA 313 TOXIC CHEMICALS

The following components are subject to reporting levels established by SARA Title III, Section 313 (40 CFR 372): *Zinc Oxide, CAS NO. 1314-13-2.*

SARA 311/312 HAZARDS

This product is an FDA regulated device and not subject to reporting requirements.

INTERNATIONAL REGULATIONS

CANADIAN ENVIRONMENTAL

PROTECTION ACT:

This product is a medical device and not subject to chemical notification requirements.

EUROPEAN INVENTORY OF EXISTING
COMMERCIAL CHEMICAL SUBSTANCES
(EINECS):

This product is a medical device and not subject to chemical notification requirements.

SECTION 16: OTHER INFORMATION**FULL TEXT OF H STATEMENTS REFERRED TO UNDER SECTION 3**

Aquatic Acute

Acute aquatic toxicity

Aquatic Chronic

Chronic aquatic toxicity

H410

Very toxic to aquatic life with long lasting effects.

NFPA RATING

Health Hazard

1

Fire Hazard

1

Reactivity Hazard

0

PREPARATION INFORMATION: This SDS was prepared in accordance with the requirements of the OSHA Hazard Communication Standard (29 CFR 1910.1200) and is to be used only for this product.

PREPARED BY: SS

PAGE 3 OF 4

SAFETY DATA SHEET

NAME OF PRODUCT: SUPERPASTE™ Base Paste

FILE NO.: SDS851

SDS DATE: 06/19/2014

DISCLAIMER: To the best of our knowledge, the information contained herein is accurate. However, The Harry J. Bosworth Company does not assume any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

SECTION 1: IDENTIFICATION

PRODUCT NAME: TRIM Liquid
PRODUCT CODES: 0921090, 0921091, 0921900, 0921903, 0921905, 0921906, 0921909, 0921914, 0921915
IDENTIFIED USES: Dentistry
USES ADVISED AGAINST: Non-dental use
MANUFACTURER: Harry J. Bosworth Company
ADDRESS: 7227 North Hamlin Avenue, Skokie, Illinois 60076-3999, USA
TELEPHONE: 847-679-3400
FAX: 847-679-2080
EMAIL: hjbinfo@bosworth.com
EMERGENCY PHONE: 800-535-5053 (US and Canada)
352-323-3500 (International)

SECTION 2: HAZARDS IDENTIFICATION

CLASSIFICATION: Flammable liquids (Category 3)
Acute toxicity, Oral (Category 5)
Acute toxicity, Dermal (Category 5)
Skin irritation (Category 2)
Skin sensitization (Category 1)
Eye irritation (Category 2A)
Acute toxicity, Inhalation (Category 5)
Specific target organ toxicity - single exposure (Category 3), Respiratory system
Reproductive toxicity (Category 2)
Specific target organ toxicity - repeated exposure (Category 2)
Acute aquatic toxicity (Category 1)
Chronic aquatic toxicity (Category 4)
LABELING: FDA regulated device - exempt from Regulation (US) 29 CFR 1910.1200.

PICTOGRAM:

SIGNAL WORD: Warning

HAZARD STATEMENTS:

H226 Flammable liquid and vapor.
H303 May be harmful if swallowed.
H313 May be harmful in contact with skin.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H333 May be harmful if inhaled.
H335 May cause respiratory irritation.
H361 Suspected of damaging fertility or the unborn child.
H373 May cause damage to organs through prolonged or repeated exposure.
H400 Very toxic to aquatic life.
H413 May cause long lasting harmful effects to aquatic life.

PRECAUTIONARY STATEMENTS:

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P234 Keep only in original container.
P235+P410 Keep cool. Protect from sunlight.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P261 Avoid breathing dust/fume/gas/mist/vapors/spray.
P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P272 Contaminated work clothing should not be allowed out of the workplace.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for

PREPARED BY: SS**PAGE 1 OF 5**

SAFETY DATA SHEET

NAME OF PRODUCT: TRIM® Liquid

FILE NO.: SDS091

SDS DATE: 06/19/2014

P305+P351+P338 breathing.
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P308+P313 IF exposed or concerned: Get medical advice/ attention.
 P312 Call a POISON CENTER or doctor/ physician if you feel unwell.
 P321 Specific treatment (see supplemental first aid instructions on this label).
 P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
 P337+P313 If eye irritation persists: Get medical advice/attention.
 P362 Take off contaminated clothing and wash before reuse.
 P370+P378 In case of fire: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide for extinction.
 P391 Collect spillage.
 P402 Store in a dry place.
 P403+P233 Store in a well-ventilated place. Keep container tightly closed.
 P501 Dispose of contents/container to an approved waste disposal plant.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENT	CAS NO.	%WT	OSHA PEL - TWA	ACGIH TLV - TWA	CLASSIFICATION
Isobutyl methacrylate	97-86-9	60-100	N/E	N/E	Flam. Liq. 3; Skin Irrit. 2; Eye Irrit. 2A; Skin Sens. 1; STOT SE 3; Aquatic Acute 1; H226, H315, H317, H319, H335, H400
Dibutyl phthalate	84-74-2	5-15	5 mg/m ³	5 mg/m ³	Repr. 1B; Aquatic Acute 1; Aquatic Chronic 1; H360, H410
N,N-Dimethyl-p-toluidine	99-97-8	1-5	N/E	N/E	Flam. Liq. 4; Acute Tox. 3; STOT RE 2; Aquatic Acute 3; Aquatic Chronic 3; H227, H301+H311+H331, H373, H412

For full text of H-statements mentioned in this section, see section 16.

SECTION 4: FIRST-AID MEASURES

INHALATION: Move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
SKIN: Wash off with soap and plenty of water. Consult a physician.
EYE: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
INGESTION: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

SECTION 5: FIRE-FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA: Water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of carbon and nitrogen.
SPECIAL HAZARDS: Sealed containers exposed to elevated temperatures may rupture explosively due to polymerization. Vapors are heavier than air and may travel to ignition source. Vapors are uninhibited and may form polymers in vents or flame arrestors resulting in stoppage of vents.
ADVICE FOR FIREFIGHTERS: Fight fires from safe distance or protected areas. Cool containers of material exposed to heat with cold water spray. Wear self contained breathing apparatus for firefighting if necessary.

SECTION 6: ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.
ENVIRONMENTAL PRECAUTIONS: Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.
CONTAINMENT AND CLEANUP: Soak up with inert absorbent material and collect with an electrically protected vacuum cleaner or by wet-brushing. Place in suitable, closed container for disposal according to official regulations.

SECTION 7: HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: Product is intended for dental use only. Handling of this product should be by trained dental healthcare professionals only. Observe normal care for working with chemicals. Avoid contact with the eyes and skin. Avoid inhalation of vapor or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the buildup of electrostatic charge. Keep away from foodstuffs, beverages and animal feed.
CONDITIONS FOR SAFE STORAGE: Store only in the original package. Keep container tightly sealed in a dry and well-ventilated place. Protect
PREPARED BY: SS

SAFETY DATA SHEET

NAME OF PRODUCT: TRIM® Liquid

FILE NO.: SDS091

SDS DATE: 06/19/2014

from heat and direct sunlight. Store away from food and beverages.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS:	Handle in accordance with good industrial hygiene and safety practice. Use with adequate general or local exhaust ventilation to maintain exposure levels below the occupational exposure limits. Local exhaust ventilation is preferred since it prevents contamination dispersion into the work area by controlling it at its source. Provide eyewash and safety shower if contact or splash hazard exists. Wash hands before breaks and at the end of work.
EYE/FACE PROTECTION:	Safety glasses.
SKIN PROTECTION:	Glove material impermeable and resistant to the product.
BODY PROTECTION:	Protective work clothing.
RESPIRATORY PROTECTION:	NIOSH (US) or CEN (EU) approved respirators and components.
ENVIRONMENTAL EXPOSURE:	Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE/COLOR:	Clear, colorless liquid
ODOR:	Acrid
BOILING POINT:	311°F (155°C)
FLASH POINT:	113°F (45°C)
EVAPORATION RATE (BuAc = 1.0):	0.5
UPPER FLAMMABILITY LIMIT:	8.2
LOWER FLAMMABILITY LIMIT:	1.8
VAPOR PRESSURE:	3 mmHg
VAPOR DENSITY (AIR=1.0):	4.91
RELATIVE DENSITY (H2O=1.0):	0.90 g/cm ³

SECTION 10: STABILITY AND REACTIVITY

CHEMICAL STABILITY:	Stable under recommended storage conditions. Polymerizes with evolution of heat. Avoid contact with incompatible materials. Unless inhibited, product can polymerize, raising temperature and pressure, possibly rupturing container. Check inhibitor content often adding to bulk liquid if needed. Do not blanket or mix with oxygen-free gas as it renders inhibitor ineffective.
HAZARDOUS REACTIONS:	Vapors may form explosive mixture with air. Polymerizes readily unless inhibited.
CONDITIONS TO AVOID:	Heat, flames, sparks, aging, contamination and absence of an oxygen containing atmosphere above the product. May polymerize upon exposure to light. Extremes of temperature and direct sunlight.
INCOMPATIBLE MATERIALS:	Strong acids, strong bases and oxidizing agents. Material has strong solvent properties and can soften paint and rubber.
HAZARDOUS DECOMPOSITION PRODUCTS:	Oxides of carbon and nitrogen.

SECTION 11: TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS:	EYES: May cause eye irritation with redness, tearing and stinging. SKIN: May cause skin irritation with redness, swelling and itching. Repeated or prolonged contact may cause drying, defatting of the skin and dermatitis. INGESTION: May cause mucous membrane and gastrointestinal irritation with nausea, vomiting and diarrhea. May cause nervous system depression with symptoms of headache, dizziness, nausea, vomiting, weakness, fatigue, confusion, and unconsciousness. INHALATION: May cause mucous membrane and respiratory irritation and central nervous system depression with symptoms of headache, dizziness, drowsiness, nausea, vomiting, and unconsciousness. High vapor concentrations may cause burning sensation of the nose and throat and watering of the eyes.
SKIN SENSITIZATION:	May cause allergic skin reaction.
CARCINOGENICITY:	OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or possible carcinogen by OSHA. ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH. NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP. IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
REPRODUCTIVE TOXICITY:	Dibutyl phthalate is a presumed human reproductive toxicant. Overexposure may cause reproductive disorders based on tests with laboratory animals.

PREPARED BY: SS

PAGE 3 OF 5

SECTION 12: ECOLOGICAL INFORMATION

ADVERSE EFFECTS: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic life. May cause long lasting harmful effects to aquatic life. Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

PRODUCT: Contact a licensed professional waste disposal service to dispose of this material. Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Must not be disposed of together with household garbage. Do not allow product to reach sewage system. Disposal must be made according to official regulations.

CONTAMINATED PACKAGING: Dispose of as unused product.

SECTION 14: TRANSPORT INFORMATION

UN NUMBER: UN2283
PROPER SHIPPING NAME: Isobutyl methacrylate, stabilized
HAZARD CLASS: 3
PACKING GROUP: III
LABEL STATEMENT: Flammable Liquid

SECTION 15: REGULATORY INFORMATION

US FEDERAL REGULATIONS

TSCA: This product is an FDA regulated device and not subject to TSCA regulations.
CERCLA: This product is an FDA regulated device and not subject to reporting requirements. There may be specific reporting requirements at the local, regional, or state level.
SARA 313 TOXIC CHEMICALS: The following components are subject to reporting levels established by SARA Title III, Section 313 (40 CFR 372): *Dibutyl Phthalate, CAS NO. 84-74-2.*
SARA 311/312 HAZARDS: This product is an FDA regulated device and not subject to reporting requirements.

US STATE REGULATIONS

CALIFORNIA PROPOSITION 65: This product may contain a chemical known to the State of California to cause cancer and/or reproductive toxicity.

INTERNATIONAL REGULATIONS

CANADIAN ENVIRONMENTAL PROTECTION ACT: This product is a medical device and not subject to chemical notification requirements.
EUROPEAN INVENTORY OF EXISTING COMMERCIAL CHEMICAL SUBSTANCES (EINECS): This product is a medical device and not subject to chemical notification requirements.

SECTION 16: OTHER INFORMATION

FULL TEXT OF H STATEMENTS REFERRED TO UNDER SECTION 3

Acute Tox.	Acute toxicity
Aquatic Acute	Acute aquatic toxicity
Aquatic Chronic	Chronic aquatic toxicity
Eye Irrit.	Eye irritation
Flam. Liq.	Flammable liquids
H226	Flammable liquid and vapor.
H227	Combustible liquid.
H301+H311+H331	Toxic if swallowed, in contact with skin or if inhaled.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H360	May damage fertility or the unborn child.

PREPARED BY: SS

PAGE 4 OF 5

SAFETY DATA SHEET

FILE NO.: SDS091

NAME OF PRODUCT: TRIM® Liquid

SDS DATE: 06/19/2014

H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
Repr.	Reproductive toxicity
Skin Irrit.	Skin irritation
Skin Sens.	Skin sensitization
STOT RE	Specific target organ toxicity – repeated exposure
STOT SE	Specific target organ toxicity – single exposure

NFPA RATING

Health Hazard	2
Fire Hazard	2
Reactivity Hazard	2

PREPARATION INFORMATION: This SDS was prepared in accordance with the requirements of the OSHA Hazard Communication Standard (29 CFR 1910.1200) and is to be used only for this product.

DISCLAIMER: To the best of our knowledge, the information contained herein is accurate. However, The Harry J. Bosworth Company does not assume any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Section 1. Identification

GHS product identifier : DUZ-ALL Liquid
Other means of identification : Not available.
Product code : 166260, 166262, 166265, 166269
Product type : Liquid.
Product use : Dental Products
Relevant identified uses of the substance or mixture and uses advised against

Not applicable.

Supplier's details : Keystone Industries
 52 West King Street
 Myerstown, PA 17067
 (856) 663-4700

Emergency telephone number (with hours of operation) : (800) 535-5053

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 2
 SKIN IRRITATION - Category 2
 SKIN SENSITIZATION - Category 1
 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3

GHS label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : Highly flammable liquid and vapor.
 Causes skin irritation.
 May cause an allergic skin reaction.
 May cause respiratory irritation.

Precautionary statements

Prevention : Wear protective gloves. Wear eye or face protection: Recommended: safety glasses with side-shields.. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep container tightly closed. Use only outdoors or in a well-ventilated area. Avoid breathing vapor. Wash hands thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.

Section 2. Hazards identification

- Response** : IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention.
- Storage** : Store locked up. Store in a well-ventilated place. Keep cool.
- Disposal** : Dispose of contents and container in accordance with all local, regional, national and international regulations.
- Hazards not otherwise classified** : None known.

Section 3. Composition/information on ingredients

- Substance/mixture** : Mixture
- Other means of identification** : Not available.

CAS number/other identifiers

- CAS number** : Not applicable.

May contain one or more of the following components in quantities considered hazardous:

Ingredient name	CAS number	EC number	%
methyl methacrylate	80-62-6	201-297-1	≥90

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately.

Section 4. First aid measures

Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : No known significant effects or critical hazards.
- Inhalation** : May cause respiratory irritation.
- Skin contact** : Causes skin irritation. May cause an allergic skin reaction.
- Ingestion** : No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
- Skin contact** : Adverse symptoms may include the following:
redness
irritation
- Ingestion** : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO₂, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.

Specific hazards arising from the chemical : Highly flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide

Section 5. Fire-fighting measures

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
methyl methacrylate	<p>ACGIH TLV (United States, 3/2015). Skin sensitizer. TWA: 50 ppm 8 hours. STEL: 100 ppm 15 minutes.</p> <p>OSHA PEL 1989 (United States, 3/1989). TWA: 100 ppm 8 hours. TWA: 410 mg/m³ 8 hours.</p> <p>NIOSH REL (United States, 10/2013). TWA: 100 ppm 10 hours. TWA: 410 mg/m³ 10 hours.</p> <p>OSHA PEL (United States, 2/2013). TWA: 100 ppm 8 hours. TWA: 410 mg/m³ 8 hours.</p>

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles. Recommended: safety glasses with side-shields.

Skin protection

Section 8. Exposure controls/personal protection

- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

- Physical state** : Liquid.
- Color** : Clear.
- Odor** : Acrid.
- pH** : Not available.
- Melting point** : Not available.
- Boiling point** : 102.22°C (216°F)
- Flash point** : Closed cup: 10°C (50°F)
- Evaporation rate** : 3 (butyl acetate = 1)
- Flammability (solid, gas)** : Highly flammable in the presence of the following materials or conditions: open flames, sparks and static discharge, heat, oxidizing materials, reducing materials and acids.
- Lower and upper explosive (flammable) limits** : Not available.
- Vapor pressure** : Not available.
- Vapor density** : 3.5 [Air = 1]
- Relative density** : 0.95
- Solubility** : Very slightly soluble in the following materials: cold water and hot water.
- Solubility in water** : Not available.
- Partition coefficient: n-octanol/water** : Not available.
- Auto-ignition temperature** : Not available.
- Viscosity** : Not available.

Section 10. Stability and reactivity

- Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- Chemical stability** : The product is stable.
- Possibility of hazardous reactions** : Hazardous reactions or instability may occur under certain conditions of storage or use.

Section 10. Stability and reactivity

Conditions to avoid : Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas.

Incompatible materials : Reactive or incompatible with the following materials:
oxidizing materials

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
methyl methacrylate	LC50 Inhalation Vapor	Rat	78000 mg/m ³	4 hours
	LD50 Dermal	Rabbit	>5 g/kg	-
	LD50 Oral	Rat	7872 mg/kg	-

Classification

Product/ingredient name	OSHA	IARC	NTP
methyl methacrylate	-	3	-

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
methyl methacrylate	Category 3	Not applicable.	Respiratory tract irritation

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : May cause respiratory irritation.

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

Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing

Skin contact : Adverse symptoms may include the following:
redness
irritation

Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Section 11. Toxicological information

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
methyl methacrylate	Acute LC50 130000 µg/l Fresh water	Fish - Pimephales promelas - Adult	96 hours

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
methyl methacrylate	1.38	-	low

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a







Section 13. Disposal considerations

safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

United States - RCRA Toxic hazardous waste "U" List

Ingredient	CAS #	Status	Reference number
Methyl methacrylate (I,T); 2-Propenoic acid, 2-methyl-, methyl ester (I,T)	80-62-6	Listed	U162

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	ADR/RID	IMDG	IATA
UN number	UN1247	UN1247	UN1247	UN1247	UN1247	UN1247
UN proper shipping name	Methyl methacrylate monomer, stabilized	Methyl methacrylate monomer, stabilized	Methyl methacrylate monomer, stabilized	Methyl methacrylate monomer, stabilized	Methyl methacrylate monomer, stabilized	Methyl methacrylate monomer, stabilized
Transport hazard class(es)	3 	3 	3 	3 	3 	3 
Packing group	II	II	II	II	II	II
Environmental hazards	No.	No.	No.	No.	No.	No.
Additional information	Reportable quantity 1009.5 lbs / 458.3 kg [127.44 gal / 482.42 L] Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.	Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.18-2.19 (Class 3).	-	-	-	-

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Section 14. Transport information

Transport in bulk according to Annex II of MARPOL and the IBC Code : Not available.

Section 15. Regulatory information

U.S. Federal regulations : TSCA 8(a) PAIR: oxybenzone
 TSCA 8(a) CDR Exempt/Partial exemption: Not determined
 United States inventory (TSCA 8b): All components are listed or exempted.
 Clean Water Act (CWA) 311: methyl methacrylate

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : Fire hazard
 Immediate (acute) health hazard

Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
methyl methacrylate	≥90	Yes.	No.	No.	Yes.	No.

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	methyl methacrylate	80-62-6	≥90
Supplier notification	methyl methacrylate	80-62-6	≥90

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

Massachusetts : The following components are listed: METHYL METHACRYLATE

New York : The following components are listed: Methyl methacrylate; 2-Propenoic acid, 2-methyl-, methyl ester

New Jersey : The following components are listed: METHYL METHACRYLATE; 2-PROPENOIC ACID, 2-METHYL-, METHYL ESTER

Section 15. Regulatory information

Pennsylvania : The following components are listed: 2-PROPENOIC ACID, 2-METHYL-, METHYL ESTER

California Prop. 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
N,N-dimethyl-p-toluidine	Yes.	No.	No.	No.

Canada inventory : All components are listed or exempted.

International regulations

International lists :

- Australia inventory (AICS):** All components are listed or exempted.
- China inventory (IECSC):** All components are listed or exempted.
- Japan inventory (ENCS):** All components are listed or exempted.
- Japan inventory (ISHL):** Not determined.
- Korea inventory:** All components are listed or exempted.
- Malaysia Inventory (EHS Register):** Not determined.
- New Zealand Inventory of Chemicals (NZIoC):** All components are listed or exempted.
- Philippines inventory (PICCS):** All components are listed or exempted.
- Taiwan Chemical Substances Inventory (TCSI):** All components are listed or exempted.
- Turkey inventory:** All components are listed or exempted.

Chemical Weapons Convention List Schedule I Chemicals : Not listed

Chemical Weapons Convention List Schedule II Chemicals : Not listed

Chemical Weapons Convention List Schedule III Chemicals : Not listed

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health	2
Flammability	3
Physical hazards	2
Personal protection	

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.)



Section 16. Other information

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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

History

Date of printing	: 6/7/2016
Date of issue/Date of revision	: 6/7/2016
Date of previous issue	: No previous validation
Version	: 1
Key to abbreviations	: ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = Intermediate Bulk Container IMDG = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coefficient MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) UN = United Nations

References : Not available.

✔ Indicates information that has changed from previously issued version.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Information contained within this SDS is only to be distributed as required by law.