



SCIGRIP® Weld-On 31 Off-White

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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Version: 2.0

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : SCIGRIP® Weld-On 31 Off-White
Other means of identification : Two Component 10:1 Ratio Cartridge – Off-White Adhesive

1.2. Recommended use and restrictions on use

Recommended use : Adhesives, sealants
Restrictions on use : Any use not specified

1.3. Supplier

SCIGRIP Smarter Adhesive Solutions
600 Ellis Road
P.O. Box 12729, Research Triangle Park, NC 27709 - USA
Durham, NC 27703 - USA
T 1-919-598-2400
<https://scigrip.com/>

1.4. Emergency telephone number

Emergency number : Transportation and Medical: CHEMTEL Tel. 800-255-3924; +1 813-248-0585 (International)

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Flammable liquids, Category 2	H225 Highly flammable liquid and vapour.
Skin corrosion/irritation, Category 1A	H314 Causes severe skin burns and eye damage.
Skin sensitisation, Category 1	H317 May cause an allergic skin reaction.
Carcinogenicity, Category 1B	H350 May cause cancer.
Reproductive toxicity, Category 2	H361 Suspected of damaging fertility or the unborn child.
Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation	H335 May cause respiratory irritation.

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labelling

Hazard pictograms (GHS) :



Signal word (GHS) :

Danger

Hazard statements (GHS_US) :

H225 - Highly flammable liquid and vapour.
H314 - Causes severe skin burns and eye damage.
H317 - May cause an allergic skin reaction.
H335 - May cause respiratory irritation.
H350 - May cause cancer.
H361 - Suspected of damaging fertility or the unborn child.

Precautionary statements (GHS) :

P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 - Keep container tightly closed.
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.
P260 - Do not breathe dust/fume/gas/mist/vapours/spray.
P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.
P264 - Wash hands, forearms and face thoroughly after handling.
P271 - Use only outdoors or in a well-ventilated area.
P272 - Contaminated work clothing must not be allowed out of the workplace.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.

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P301+P330+P331 - If swallowed: rinse mouth. Do NOT induce vomiting.
P302+P352 - If on skin: Wash with plenty of water.
P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340 - If inhaled: Remove person to fresh air and keep 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.
P310 - Immediately call a poison center or doctor.
P312 - Call a poison center/doctor if you feel unwell
P321 - Specific treatment (see supplemental first aid instruction on this label).
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P363 - Wash contaminated clothing before reuse.
P370+P378 - In case of fire: Use media other than water to extinguish.
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
P403+P235 - Store in a well-ventilated place. Keep cool.
P405 - Store locked up.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards which do not result in classification

No data available

2.4. Unknown acute toxicity (GHS_US)

19.3% of the mixture consists of ingredient(s) of unknown acute toxicity (Oral)

19.3% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal)

19.3% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
Methyl methacrylate	(CAS-No.) 80-62-6	40 - 50	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Skin Sens. 1, H317 STOT SE 3, H335
Methacrylic acid	(CAS-No.) 79-41-4	5 - 10	Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Dermal), H311 Skin Corr. 1A, H314
Methyl methacrylate/Butadiene/Styrene Copolymer	(CAS-No.) 25053-09-2	1 - 5	Eye Irrit. 2B, H320 Skin Sens. 1B, H317
DIBENZOYL PEROXIDE	(CAS-No.) 94-36-0	1 - 2	Org. Perox. B, H241 Eye Irrit. 2A, H319 Skin Sens. 1, H317
rosin	(CAS-No.) 8050-09-7	0.1 - <1	Skin Sens. 1, H317
Styrene	(CAS-No.) 100-42-5	0.1 - <1	Flam. Liq. 3, H226 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Carc. 1B, H350 Repr. 2, H361 STOT RE 1, H372 Asp. Tox. 1, H304 Aquatic Chronic 3, H412
Propylidynetrimethanol, ethoxylated, esters with acrylic acid	(CAS-No.) 28961-43-5	0.1 - <1	Eye Irrit. 2A, H319 Skin Sens. 1, H317
Bis[2-(acryloyloxy)ethyl] hydrogen phosphate	(CAS-No.) 40074-34-8	<0.5	Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1B, H317
2-(Phosphonoxy)ethyl acrylate	(CAS-No.) 32120-16-4	<0.5	Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1B, H317
Tetradecyl methacrylate	(CAS-No.) 2549-53-3	<0.5	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1, H317 STOT SE 3, H335
benzene-1,4-diol	(CAS-No.) 123-31-9	<0.5	Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318 Skin Sens. 1, H317

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Name	Product identifier	%	GHS US classification
			Muta. 2, H341 Carc. 2, H351 Aquatic Acute 1, H400

*Chemical name, CAS number and/or exact concentration have been withheld as a trade secret

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

- First-aid measures general : Never give anything by mouth to an unconscious person. If medical advice is needed, have product container or label at hand.
- First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.
- First-aid measures after skin contact : Take off immediately all contaminated clothing and wash it before reuse. Wash skin thoroughly with mild soap and water. Get medical advice/attention.
- First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.
- First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Get medical advice/attention.

4.2. Most important symptoms and effects (acute and delayed)

- Symptoms/effects : May cause cancer. Suspected of damaging fertility or the unborn child.
- Symptoms/effects after inhalation : May cause respiratory irritation.
- Symptoms/effects after skin contact : May cause an allergic skin reaction. Causes severe skin burns and eye damage. Itching. Redness. Swelling. Blisters.
- Symptoms/effects after eye contact : Causes serious eye damage. Can cause blindness.
- Symptoms/effects after ingestion : Burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

- Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.
- Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

- Fire hazard : Highly flammable liquid and vapour. Flammable vapours may accumulate in the container.
- Explosion hazard : May form flammable/explosive vapour-air mixture. Heat may build pressure, rupturing closed containers.
- Reactivity : No dangerous reactions known under normal conditions of use.

5.3. Special protective equipment and precautions for fire-fighters

- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Wear a self contained breathing apparatus. Wear fire/flame resistant/retardant clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smoking. Do not breathe aerosol. Do not breathe vapour. Do not get in eyes, on skin, or on clothing. Do NOT taste or swallow. Do not touch spilled material. Ensure adequate ventilation. Use personal protective equipment as required.

6.1.1. For non-emergency personnel

- Protective equipment : Refer to section 8.2.
- Emergency procedures : Exercise caution. Spill area may be slippery.

6.1.2. For emergency responders

- Protective equipment : Refer to section 8.2.
- Emergency procedures : Ventilate area. Eliminate every possible source of ignition. Avoid release to the environment.

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6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

- For containment : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.
- Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.
- Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

Section 8: personal protective equipment. For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Additional hazards when processed : Handle empty containers with care because residual vapours are flammable.
- Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour. No open flames. No smoking. Use only non-sparking tools. Do not breathe aerosol. Avoid contact during pregnancy/while nursing. Do not breathe vapours. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use only outdoors or in a well-ventilated area. Do not get in eyes, on skin, or on clothing. Wear personal protective equipment.
- Hygiene measures : Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Keep only in the original container. Keep in fireproof place. Keep container tightly closed.
- Incompatible products : Strong bases. Strong acids. Strong oxidizers. Free radical initiators. Combustible products.
- Incompatible materials : Sources of ignition. Direct sunlight. Heat sources.
- Prohibitions on mixed storage : Incompatible materials.
- Storage area : Store in dry, cool, well-ventilated area.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Methyl methacrylate (80-62-6)		
ACGIH	Local name	Methyl methacrylate
ACGIH	ACGIH TWA (mg/m ³)	205 mg/m ³
ACGIH	ACGIH OEL TWA [ppm]	50 ppm
ACGIH	ACGIH STEL (mg/m ³)	410 mg/m ³
ACGIH	ACGIH OEL STEL [ppm]	100 ppm
ACGIH	Remark (ACGIH)	TLV® Basis: URT & eye irr; body weight eff; pulm edema. Notations: DSEN; A4 (Not classifiable as a Human Carcinogen)
ACGIH	Regulatory reference	ACGIH 2021
OSHA	OSHA PEL TWA [1]	410 mg/m ³
OSHA	OSHA PEL TWA [2]	100 ppm
OSHA	Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
NIOSH	NIOSH REL TWA	410 mg/m ³
NIOSH	NIOSH REL TWA [ppm]	100 ppm
Methacrylic acid (79-41-4)		
ACGIH	Local name	Methacrylic acid
ACGIH	ACGIH TWA (mg/m ³)	70 mg/m ³
ACGIH	ACGIH OEL TWA [ppm]	20 ppm

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Methacrylic acid (79-41-4)

ACGIH	Remark (ACGIH)	TLV® Basis: Skin & eye irr
ACGIH	Regulatory reference	ACGIH 2021
NIOSH	NIOSH REL TWA	70 mg/m ³
NIOSH	NIOSH REL TWA [ppm]	20 ppm

DIBENZOYL PEROXIDE (94-36-0)

ACGIH	Local name	Benzoyl peroxide
ACGIH	ACGIH TWA (mg/m ³)	5 mg/m ³
ACGIH	Remark (ACGIH)	TLV® Basis: URT & skin irr. Notations: A4 (Not classifiable as a Human Carcinogen)
ACGIH	Regulatory reference	ACGIH 2021
OSHA	OSHA PEL TWA [1]	5 mg/m ³
OSHA	Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
NIOSH	NIOSH REL TWA	5 mg/m ³

rosin (8050-09-7)

ACGIH	Local name	Rosin core solder thermal decomposition products (colophony)
ACGIH	Remark (ACGIH)	DSEN; RSEN

Tetradecyl methacrylate (2549-53-3)

Not applicable

Styrene (100-42-5)

ACGIH	Local name	Styrene
ACGIH	ACGIH TWA (mg/m ³)	85 mg/m ³
ACGIH	ACGIH OEL TWA [ppm]	10 ppm
ACGIH	ACGIH STEL (mg/m ³)	170 mg/m ³
ACGIH	ACGIH OEL STEL [ppm]	20 ppm
ACGIH	Remark (ACGIH)	TLV® Basis: CNS & hearing impair; URT irr; peripheral neuropathy; visual disorders. Notations: OTO; A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans); BEI
ACGIH	Regulatory reference	ACGIH 2021
OSHA	OSHA PEL TWA [1]	420 mg/m ³
OSHA	OSHA PEL TWA [2]	100 ppm
OSHA	OSHA PEL C [ppm]	200 ppm
OSHA	Acceptable maximum peak above the acceptable ceiling concentration for an 8-hr shift	600 ppm 5 mins. in any 3 hrs.
OSHA	Remark (OSHA)	(Acceptable maximum peak above the acceptable ceiling concentration for an 8-hr shift: 600 ppm 5 mins. in any 3 hrs.)
OSHA	Regulatory reference (US-OSHA)	OSHA Annotated Table Z-2
NIOSH	NIOSH REL TWA	215 mg/m ³
NIOSH	NIOSH REL TWA [ppm]	50 ppm
NIOSH	NIOSH REL STEL	425 mg/m ³
NIOSH	NIOSH REL STEL [ppm]	100 ppm

Methyl methacrylate/Butadiene/Styrene Copolymer (25053-09-2)

Not applicable

Propylidynetrimethanol, ethoxylated, esters with acrylic acid (28961-43-5)

Not applicable

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Bis[2-(acryloyloxy)ethyl] hydrogen phosphate (40074-34-8)

Not applicable

2-(Phosphonoxy)ethyl acrylate (32120-16-4)

Not applicable

benzene-1,4-diol (123-31-9)

ACGIH	Local name	Hydroquinone
ACGIH	ACGIH TWA (mg/m ³)	1 mg/m ³
ACGIH	Remark (ACGIH)	TLV® Basis: Eye irr; eye dam. Notations: DSEN; A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans)
ACGIH	Regulatory reference	ACGIH 2021
OSHA	OSHA PEL TWA [1]	2 mg/m ³
OSHA	Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
NIOSH	NIOSH REL C	2 mg/m ³

8.2. Appropriate engineering controls

Appropriate engineering controls : Avoid creating mist or spray. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure good ventilation of the work station.

Environmental exposure controls : Prevent leakage or spillage.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Avoid all unnecessary exposure.

Hand protection:

Wear suitable gloves resistant to chemical penetration. Butyl rubber gloves. barrier laminate. Fluoroelastomer (FKM)

Eye protection:

Chemical goggles or safety glasses. face shield

Skin and body protection:

Wear suitable protective clothing. Chemical resistant apron. Chemical resistant safety shoes

Respiratory protection:

In case of inadequate ventilation wear respiratory protection. Approved organic vapour respirator. Appropriate dust or mist respirator should be used if airborne particles are generated when handling this material

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Paste.
Colour	: Off-white
Odour	: Solvent
Odour threshold	: No data available
pH	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available

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Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Solubility	: No data available
Log Pow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive limits	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available

9.2. Other information

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known under normal conditions of use.

10.2. Chemical stability

Stable under normal conditions. Highly flammable liquid and vapour. May form flammable/explosive vapour-air mixture.

10.3. Possibility of hazardous reactions

Hazardous polymerization may occur if exposed to high temperature.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures. Open flame.

10.5. Incompatible materials

Strong acids. Strong bases. Strong oxidizers. Free radical initiators.

10.6. Hazardous decomposition products

Carbon oxides (CO, CO₂). Methyl methacrylate. hydrocarbons.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

Unknown acute toxicity (GHS_US)	19.3% of the mixture consists of ingredient(s) of unknown acute toxicity (Oral) 19.3% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal) 19.3% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))
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Methyl methacrylate (80-62-6)	
LD50 oral rat	7900 – 9400 mg/kg
LD50 dermal rabbit	> 5000 mg/kg
ATE (oral)	7900 mg/kg bodyweight
ATE (dust,mist)	29.8 mg/l/4h

Methacrylic acid (79-41-4)	
LD50 oral rat	1320 mg/kg
LD50 dermal rabbit	500 – 1000 mg/kg
LC50 Inhalation - Rat	7.1 mg/l/4h
ATE (oral)	1320 mg/kg bodyweight
ATE (dermal)	500 mg/kg bodyweight
ATE (vapours)	7.1 mg/l/4h
ATE (dust,mist)	7.1 mg/l/4h

DIBENZOYL PEROXIDE (94-36-0)	
LD50 oral rat	> 5000 mg/kg bodyweight

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rosin (8050-09-7)	
LD50 oral rat	2800 mg/kg
LD50 dermal rat	> 2000 mg/kg

Tetradecyl methacrylate (2549-53-3)	
LD50 oral rat	> 17500 mg/kg
LD50 dermal rabbit	> 3000 mg/kg

Styrene (100-42-5)	
LD50 oral rat	2650 mg/kg
LD50 dermal rat	> 2000 mg/kg
LC50 Inhalation - Rat	11.8 mg/l/4h
LC50 Inhalation - Rat [ppm]	2800 ppm/4h
ATE (oral)	2650 mg/kg bodyweight
ATE (gases)	2800 ppmv/4h
ATE (vapours)	11.8 mg/l/4h
ATE (dust,mist)	1.5 mg/l/4h

Propylidynetrimehanol, ethoxylated, esters with acrylic acid (28961-43-5)	
LD50 oral rat	> 2000 mg/kg
LD50 dermal rabbit	> 13200 mg/kg

benzene-1,4-diol (123-31-9)	
LD50 oral rat	375 mg/kg
ATE (oral)	375 mg/kg bodyweight

Skin corrosion/irritation	: Causes severe skin burns.
Serious eye damage/irritation	: Assumed to cause serious eye damage
Respiratory or skin sensitisation	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: May cause cancer.

Methyl methacrylate (80-62-6)	
IARC group	3 - Not classifiable

DIBENZOYL PEROXIDE (94-36-0)	
IARC group	3 - Not classifiable

Styrene (100-42-5)	
IARC group	2A - Probably carcinogenic to humans
National Toxicology Program (NTP) Status	Reasonably anticipated to be Human Carcinogen

benzene-1,4-diol (123-31-9)	
IARC group	3 - Not classifiable

Reproductive toxicity	: Suspected of damaging fertility or the unborn child.
STOT-single exposure	: May cause respiratory irritation.

Methyl methacrylate (80-62-6)	
STOT-single exposure	May cause respiratory irritation.

Tetradecyl methacrylate (2549-53-3)	
STOT-single exposure	May cause respiratory irritation.

STOT-repeated exposure	: Not classified
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Styrene (100-42-5)	
STOT-repeated exposure	Causes damage to organs (hearing organs) through prolonged or repeated exposure (Inhalation).

Aspiration hazard	: Not classified
Viscosity, kinematic	: No data available
Likely routes of exposure	: Skin and eye contact. Inhalation.
Symptoms/effects	: May cause cancer. Suspected of damaging fertility or the unborn child.

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Symptoms/effects after inhalation	: May cause respiratory irritation.
Symptoms/effects after skin contact	: May cause an allergic skin reaction. Causes severe skin burns and eye damage. Itching. Redness. Swelling. Blisters.
Symptoms/effects after eye contact	: Causes serious eye damage. Can cause blindness.
Symptoms/effects after ingestion	: Burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

Methyl methacrylate (80-62-6)

LC50 fish 1	> 79 mg/l 96 h
EC50 crustacea	69 mg/l 48 h

Methacrylic acid (79-41-4)

LC50 fish 1	85 mg/l 96 h <i>Oncorhynchus mykiss</i>
LC50 - Fish [2]	833 mg/l 96 h <i>Scophthalmus maximus</i>

rosin (8050-09-7)

LC50 fish 1	< 10 mg/l 96 h
EC50 crustacea	911 mg/l 48 h

Styrene (100-42-5)

LC50 fish 1	10 mg/l
EC50 crustacea	4.7 mg/l
LC50 - Fish [2]	4.02 mg/l
NOEC chronic crustacea	1.01 mg/l

Propylidynetrimethanol, ethoxylated, esters with acrylic acid (28961-43-5)

LC50 fish 1	1.95 mg/l 96 h <i>Danio rerio</i>
EC50 crustacea	70.7 mg/l 48 h

benzene-1,4-diol (123-31-9)

LC50 fish 1	0.638 mg/l <i>Oncorhynchus mykiss</i>
EC50 crustacea	0.134 mg/l

12.2. Persistence and degradability

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Persistence and degradability : May cause long-term adverse effects in the environment.

Methyl methacrylate (80-62-6)

Persistence and degradability : Readily biodegradable.
BOD (% of ThOD) : 94.3 % ThOD

rosin (8050-09-7)

Biodegradation : 71 % 28 d

Styrene (100-42-5)

Biodegradation : 80 %

Methyl methacrylate/Butadiene/Styrene Copolymer (25053-09-2)

Persistence and degradability : Not readily biodegradable.

12.3. Bioaccumulative potential

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Bioaccumulative potential : Not established.

Methyl methacrylate (80-62-6)

Log Pow : 1.38

rosin (8050-09-7)

Log Pow : 3 (3 – 6.2)

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Styrene (100-42-5)	
Bioconcentration factor (BCF REACH)	74
Methyl methacrylate/Butadiene/Styrene Copolymer (25053-09-2)	
Bioaccumulative potential	Does not biaccumulate significantly.
benzene-1,4-diol (123-31-9)	
Log Pow	0.5
12.4. Mobility in soil	
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Ecology - soil	Not established.

12.5. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Disposal methods

Sewage disposal recommendations : Do not dispose of waste into sewer.
Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.
Additional information : Handle empty containers with care because residual vapours are flammable. Hazardous waste due to potential risk of explosion.
Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Transport document description : UN2924 FLAMMABLE LIQUID, CORROSIVE, N.O.S. (Methacrylic acid, Methyl methacrylate monomer), 3 (8), II
UN-No.(DOT) : UN2924
Proper Shipping Name (DOT) : FLAMMABLE LIQUID, CORROSIVE, N.O.S.
Methacrylic acid, Methyl methacrylate monomer
Transport hazard class(es) (DOT) : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120
Packing group (DOT) : II - Medium Danger
Subsidiary risk (DOT) : 8 - Class 8 - Corrosive material 49 CFR 173.136
Hazard labels (DOT) : 3 - Flammable liquid
8 - Corrosive



DOT Packaging Non Bulk (49 CFR 173.xxx) : 202
DOT Packaging Bulk (49 CFR 173.xxx) : 243
DOT Special Provisions (49 CFR 172.102) : IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized.
T11 - 6 178.274(d)(2) Normal..... 178.275(d)(3)
TP2 - a. The maximum degree of filling must not exceed the degree of filling determined by the following: (image) Where: tr is the maximum mean bulk temperature during transport, tf is the temperature in degrees celsius of the liquid during filling, and a is the mean coefficient of cubical expansion of the liquid between the mean temperature of the liquid during filling (tf) and the maximum mean bulk temperature during transportation (tr) both in degrees celsius. b. For liquids transported under ambient conditions may be calculated using the formula: (image) Where: d15 and d50 are the densities (in units of mass per unit volume) of the liquid at 15 C (59 F) and 50 C (122 F), respectively.
TP27 - A portable tank having a minimum test pressure of 4 bar (400 kPa) may be used provided the calculated test pressure is 4 bar or less based on the MAWP of the hazardous

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	material, as defined in 178.275 of this subchapter, where the test pressure is 1.5 times the MAWP.
DOT Packaging Exceptions (49 CFR 173.xxx)	: 150
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	: 1 L
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	: 5 L
DOT Vessel Stowage Location	: B - (i) The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) "On deck only" on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded.
DOT Vessel Stowage Other	: 40 - Stow "clear of living quarters"
Emergency Response Guide (ERG) Number	: 132
Other information	: No supplementary information available.

Transport by sea

Transport document description (IMDG)	: UN 2924 FLAMMABLE LIQUID, CORROSIVE, N.O.S. (Methacrylic acid, Methyl methacrylate monomer), 3 (8), II
UN-No. (IMDG)	: 2924
Proper Shipping Name (IMDG)	: FLAMMABLE LIQUID, CORROSIVE, N.O.S.
Class (IMDG)	: 3 - Flammable liquids
Packing group (IMDG)	: II - substances presenting medium danger
Subsidiary risk (IMDG)	: 8 - Corrosive substances
Limited quantities (IMDG)	: 1 L

Air transport

Transport document description (IATA)	: UN 2924 FLAMMABLE LIQUID, CORROSIVE, N.O.S. (Methacrylic acid, Methyl methacrylate monomer), 3 (8), II
UN-No. (IATA)	: 2924
Proper Shipping Name (IATA)	: FLAMMABLE LIQUID, CORROSIVE, N.O.S.
Class (IATA)	: 3 - Flammable Liquids
Packing group (IATA)	: II - Medium Danger
Subsidiary hazards (IATA)	: 8 - Corrosive substances

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

Methyl methacrylate (80-62-6)

Subject to reporting requirements of United States SARA Section 313

EPA TSCA Regulatory Flag	T - T - indicates a substance that is the subject of a final TSCA section 4 test rule.
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CERCLA RQ	1000 lb
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DIBENZOYL PEROXIDE (94-36-0)

Subject to reporting requirements of United States SARA Section 313

Styrene (100-42-5)

Subject to reporting requirements of United States SARA Section 313

Listed on EPA Hazardous Air Pollutant (HAPS)

CERCLA RQ	1000 lb
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Propylidynetrimethanol, ethoxylated, esters with acrylic acid (28961-43-5)

EPA TSCA Regulatory Flag	XU - XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711).
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benzene-1,4-diol (123-31-9)

Subject to reporting requirements of United States SARA Section 313

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benzene-1,4-diol (123-31-9)

CERCLA RQ	100 lb
RQ (Reportable quantity, section 304 of EPA's List of Lists)	100 lb
SARA Section 302 Threshold Planning Quantity (TPQ)	10000 lb 500lb if the substance is solid in powder form with particle size less than 100 microns, or is in solution or molten form

15.2. International regulations

CANADA

Methyl methacrylate (80-62-6)

Listed on the Canadian DSL (Domestic Substances List) inventory.

Methacrylic acid (79-41-4)

Listed on the Canadian DSL (Domestic Substances List) inventory.

DIBENZOYL PEROXIDE (94-36-0)

Listed on the Canadian DSL (Domestic Substances List) inventory.

rosin (8050-09-7)

Listed on the Canadian DSL (Domestic Substances List) inventory.

Tetradecyl methacrylate (2549-53-3)

Listed on the Canadian DSL (Domestic Substances List) inventory.

Styrene (100-42-5)

Listed on the Canadian DSL (Domestic Substances List) inventory.

Methyl methacrylate/Butadiene/Styrene Copolymer (25053-09-2)

Listed on the Canadian DSL (Domestic Substances List) inventory.

Propylidynetrimethanol, ethoxylated, esters with acrylic acid (28961-43-5)

Listed on the Canadian DSL (Domestic Substances List) inventory.

Bis[2-(acryloyloxy)ethyl] hydrogen phosphate (40074-34-8)

Listed on the Canadian NDSL (Non-Domestic Substances List)

2-(Phosphonoxy)ethyl acrylate (32120-16-4)

Listed on the Canadian NDSL (Non-Domestic Substances List)

benzene-1,4-diol (123-31-9)

Listed on the Canadian DSL (Domestic Substances List) inventory.

National regulations

Methyl methacrylate (80-62-6)

Listed on the Chinese Catalog of Hazardous Chemicals.
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on KECL/KECI (Korean Existing Chemicals Inventory)
Listed on the TCSI (Taiwan Chemical Substance Inventory)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

Methacrylic acid (79-41-4)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Chinese Catalog of Hazardous Chemicals.
Listed on KECL/KECI (Korean Existing Chemicals Inventory)
Listed on the TCSI (Taiwan Chemical Substance Inventory)

DIBENZOYL PEROXIDE (94-36-0)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on the Korea Designated Existing Substances List (First Batch).
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory

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DIBENZOYL PEROXIDE (94-36-0)

Listed on the Chinese Catalog of Hazardous Chemicals.
Listed on the TCSI (Taiwan Chemical Substance Inventory)
Listed on KECL/KECI (Korean Existing Chemicals Inventory)
Listed on Chinese List of Hazardous Chemicals for Priority Management-SAWS

rosin (8050-09-7)

Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on the Inventory of Existing Chemical Substances Produced or Imported in China (IECSC).
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on KECL/KECI (Korean Existing Chemicals Inventory)
Listed on the TCSI (Taiwan Chemical Substance Inventory)

Tetradecyl methacrylate (2549-53-3)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on Taiwan National Chemical Inventory
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on KECL/KECI (Korean Existing Chemicals Inventory)

Styrene (100-42-5)

Listed on IARC (International Agency for Research on Cancer)
Listed as carcinogen on NTP (National Toxicology Program)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on Taiwan National Chemical Inventory
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Chinese Catalog of Hazardous Chemicals.
Listed on Chinese List of Hazardous Chemicals for Priority Management-SAWS
Listed on KECL/KECI (Korean Existing Chemicals Inventory)

Methyl methacrylate/Butadiene/Styrene Copolymer (25053-09-2)

Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on KECL/KECI (Korean Existing Chemicals Inventory)
Listed on the TCSI (Taiwan Chemical Substance Inventory)
Listed on NZIoC (New Zealand Inventory of Chemicals)

Propylidynetrimethanol, ethoxylated, esters with acrylic acid (28961-43-5)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the TCSI (Taiwan Chemical Substance Inventory)
Listed on KECL/KECI (Korean Existing Chemicals Inventory)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on the AICS (Australian Inventory of Chemical Substances)

Bis[2-(acryloyloxy)ethyl] hydrogen phosphate (40074-34-8)

Not listed on the Inventory of Existing Chemical Substances of China (IECSC).
Listed on the TCSI (Taiwan Chemical Substance Inventory)
Not listed on KECL/KECI (Korean Existing Chemicals Inventory)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Not listed on Phillipines Inventory of Chemicals and Chemical Substances (PICCS)
Listed on the AICS (Australian Inventory of Chemical Substances)

2-(Phosphonoxy)ethyl acrylate (32120-16-4)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the TCSI (Taiwan Chemical Substance Inventory)
Not listed on KECL/KECI (Korean Existing Chemicals Inventory)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on the AICS (Australian Inventory of Chemical Substances)

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benzene-1,4-diol (123-31-9)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Chinese Catalog of Hazardous Chemicals.
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on Taiwan National Chemical Inventory
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Japan Priority Assessment Chemical Substances (Act, Art.2, Para.5)
Japan Type II Monitoring Chemical Substance (Article 2, Paragraph (5) of the Act)
Listed on KECL/KECI (Korean Existing Chemicals Inventory)

15.3. US State regulations

⚠ WARNING: This product can expose you to 1,3-butadiene, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Component	Carcinogenicity	Developmental toxicity	Reproductive toxicity male	Reproductive toxicity female	No significant risk level (NSRL)	Maximum allowable dose level (MADL)
Styrene(100-42-5)	X				27 µg/day	
1,3-butadiene(106-99-0)	X	X	X	X	0.4 µg/day	
4-vinylcyclohexene(100-40-3)	X		X	X		

Component	State or local regulations
Methyl methacrylate(80-62-6)	U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities; U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances; U.S. - Pennsylvania - RTK (Right to Know) List
rosin(8050-09-7)	U.S. - Minnesota - Hazardous Substance List; U.S. - Washington - Permissible Exposure Limits - Carcinogens
Styrene(100-42-5)	U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities; U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations; U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List
Methacrylic acid(79-41-4)	U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances; U.S. - Pennsylvania - RTK (Right to Know) List
benzene-1,4-diol(123-31-9)	U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities; U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances; U.S. - Pennsylvania - RTK (Right to Know) List
DIBENZOYL PEROXIDE(94-36-0)	U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities; U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations; U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

Revision date : 02/17/2021
Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006. European Chemicals Agency (ECHA) C&L Inventory database. Accessed at <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>.
Kristen Forsberg and S.Z. Mansdorf, "Quick Selection Guide to Chemical Protective Clothing", Fifth Edition. National Fire Protection Association. Fire Protection Guide to Hazardous Materials; 10th edition. Manufacturer Information. United Nations Economic Commission for

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Europe: About the GHS. Accessed at
http://www.unece.org/trans/danger/publi/ghs/ghs_welcome_e.html.

Other information

: None.

Full text of H-statements:

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H241	Heating may cause a fire or explosion.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H320	Causes eye irritation
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H341	Suspected of causing genetic defects.
H350	May cause cancer.
H351	Suspected of causing cancer.
H361	Suspected of damaging fertility or the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H412	Harmful to aquatic life with long lasting effects.

Abbreviations and acronyms:

	ATE: Acute Toxicity Estimate
	CAS (Chemical Abstracts Service) number
	CLP: Classification, Labelling, Packaging.
	EC50: Environmental Concentration associated with a response by 50% of the test population.
	GHS: Globally Harmonized System (of Classification and Labeling of Chemicals).
	European List of Waste (LoW) code
	LD50: Lethal Dose for 50% of the test population
	TWA: Time Weighted Average
	STEL: Short Term Exposure Limits
	PBT: Persistent, Bioaccumulative, Toxic
	WEL: Workplace Exposure Limit
vPvB	Very Persistent and Very Bioaccumulative

NFPA health hazard

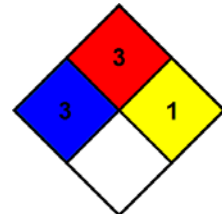
: 3 - Materials that, under emergency conditions, can cause serious or permanent injury.

NFPA fire hazard

: 3 - Liquids and solids (including finely divided suspended solids) that can be ignited under almost all ambient temperature conditions.

NFPA reactivity

: 1 - Materials that in themselves are normally stable but can become unstable at elevated temperatures and pressures.



Indication of changes:

Composition/information on ingredients. GHS classification. General information. Transport information.

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.