Safety Data Sheet
INDUSTRIAL 3-D PRINTING CEMENT

SECTION 1: Identification

1.1 GHS Product identifier

Product name	Industrial 3-D Printing Cement
Brand	Caseway

1.2 Other means of identification

SDS Number: CIP-022
UN/ID No: UN1133

1.3 Recommended use of the chemical and restrictions on use

Recommended Use: Adhesive
Restrictions On Use: This chemical/product is not and cannot be distributed in commerce (as defined in TSCA section 3(5)) or processed (as defined in TSCA section 3(13)) for consumer paint or coating removal.

Other restrictions on use based on local, regional, or national regulations may exist and must be determined on a case-by-case basis.

1.4 Supplier's details

Name	Caseway Industrial Products, Inc.
Address	3487 Highland Drive Bay City MI 48706 United States Telephone 19893919992 Fax 19893919994
Email	support@casewayproducts.com

1.5 Emergency phone number

INFOTRAC (Contract: 106140)
North America: 1-800-535-5053
International: 1-352-323-3500

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture

GHS classification in accordance with: OSHA (29 CFR 1910.1200)

- Carcinogenicity, Cat. 1B
- Germ cell mutagenicity, Cat. 2
- Eye damage/irritation, Cat. 2A
- Skin corrosion/irritation, Cat. 2
- Sensitization, skin, Cat. 1
- Specific target organ toxicity (single exposure), Cat. 3
- Flammable liquids, Cat. 2
- Toxic to reproduction, Cat. 1A

2.2 GHS label elements, including precautionary statements

Pictogram

Signal word **Danger**

Hazard statement(s)

H225	Highly flammable liquid and vapor
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness
H341	Suspected of causing genetic defects
H350	May cause cancer
H360	May damage fertility or the unborn child

Precautionary statement(s)
Prevention

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.
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.
P261	Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
P264	Wash skin 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.

Response

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.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.
P370+P378	In case of fire: Use foam, dry chemical, CO2 (carbon dioxide), or water fog/fine spray to extinguish.

Storage

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.

Disposal

P501	Dispose of contents/container to an approved waste disposal plant.

2.3 Other hazards which do not result in classification

- Harmful to aquatic life with long lasting effects
- Exposure in an enclosed or poorly-ventilated area may be harmful.
- This material may be absorbed across the skin causing systemic effects.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Name	CAS No.	EC No.	Index No.	Concentration (weight)
Methyl Methacrylate	80-62-6	201-297-1	607-035-00-6	30 – 40 %
Methylene Chloride	75-09-2	200-838-9	602-004-00-3	25 – 40 %
Methyl Ethyl Ketone	78-93-3	201-159-0	606-002-00-3	10 – 20 %
Trichloroethylene	79-01-6	201-167-4	602-027-00-9	2 – 10 %

Trade secret statement (OSHA 1910.1200(i))
*The specific chemical identities and/or actual concentrations or actual concentration ranges for one or more listed components are being withheld as trade secrets under the US regulation 29 CFR 1910.1200(i).

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

General advice	IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice/attention (show label or SDS where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Never give anything by mouth to an unconscious person.
If inhaled	Move victim to fresh air and keep at rest in a position comfortable for breathing. Loosen tight clothing such as a collar, tie, belt, or waistband. Call a POISON CENTER or doctor/physician immediately.
In case of skin contact	If on skin, wash with plenty of water for at least 15 minutes. If skin irritation occurs or rash occurs, get medical advice/attention. Take off contaminated clothing and wash before reuse.
In case of eye contact	If in eyes, rinse cautiously with water for several minutes occasionally lifting the upper and lower eyelids. Remove contact lenses, if present and easy to do. Continue rinsing for at least 15 minutes. If eye irritation persists, get medical attention.
If swallowed	If swallowed, rinse mouth. Drink plenty of water. Do NOT induce vomiting. Seek medical attention immediately.
	Personal protective equipment for first-aid responders No action should be taken involving any personal risk or without suitable training. Protect against vapor/gas exposure. Avoid contact with skin. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus.

4.2 Most important symptoms/effects, acute and delayed

Inhalation (Breathing): Respiratory System Effects: Pulmonary irritation, cough, chest discomfort, shortness of breath, headache, euphoria, nausea, and vomiting, respiratory irritation. May cause drowsiness or dizziness.
Skin: Skin Irritation. Skin exposure may cause intense burning sensation, mild redness, or numbness. Severe burns may develop following prolonged exposures. May cause an allergic skin reaction.

Eye: Eye Irritation. Mild eye irritation may occur when exposed to vapor. Splash of liquid in the eye can cause conjunctival irritation and burning pain. Prolonged contact can cause severe corneal burns.

Ingestion (Swallowing): Ingesting this material may cause nausea, vomiting, mucosal irritation, with burning sensation. System effects include central nervous system depression and headache. Ingesting concentrated solutions of this material can cause corrosion of the GI tract and perforation.

4.3 Indication of immediate medical attention and special treatment needed, if necessary
Notes to Physician: Provide general supportive measures and treat symptomatically. The primary exposure route is inhalation. Methylene Chloride (25-40%) is metabolized to carbon monoxide. Carbon monoxide levels may increase after exposure has ceased.
May cause an allergic reaction skin reaction in susceptible or hypersensitive individuals upon repeated or prolonged exposure.

Thermal Burns: Flush with water immediately. While flushing, remove clothes which do not adhere to the affected area. Call an ambulance. Continue flushing during transportation to the hospital. Keep victim under observation. Symptoms may be delayed.

SECTION 5: Fire-fighting measures

5.1 Suitable extinguishing media
Use foam, dry chemical, CO2 (carbon dioxide), or water fog/fine spray. Ansul "Purple K".

Unsuitable Extinguishing Media: High volume water jet.

5.2 Specific hazards arising from the chemical
This material can be ignited by heat, sparks, flames, or other sources of ignition (e.g. static electricity, pilot lights, mechanical/electrical equipment, and electronic devices). Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. In fire or is heated, containers may rupture or burst. Vapors are heavier than air and can accumulate in low areas.
Hazardous Combustion Products: Hydrogen chloride, trace amounts of phosgene, chlorine, and carbon monoxide.

Sensitivity to Static Discharge: Take precautionary measures against static discharge.

5.3 Special protective actions for fire-fighters
Wear NIOSH approved positive-pressure self-contained breathing apparatus operated in pressure demand mode. Move container from fire area if it can be done without risk. Cool containers with water spray until well after the fire is out. Flood with fine water spray. Do not scatter spilled material with high-pressure water streams. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas. Keep water runoff out of water supplies and sewers (see section 6 of SDS).

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment, and emergency procedures
Wear appropriate personal protective equipment recommended in Section 8 of the SDS. Remove all sources of ignition. Most vapors are heavier than air and will spread along ground and collect in low or confined areas (basements, drains, tanks). Do not breathe vapors, mist or spray. Ventilate closed spaces before entering. Exposure in an enclosed or poorly-ventilated area may be harmful. Keep unnecessary people away, isolate hazard area and deny entry. Evacuation of surrounding area may be necessary for large spills. Do not get in eyes, on skin or clothing. The wet contaminated surface may be slippery, especially on painted or coated flooring.

6.2 Environmental precautions
Keep out of water supplies, sewers, and soil. Avoid discharge into drains, surface water, or groundwater. Releases should be reported, if required, to appropriate regulatory agencies. See (Section 12) for additional ecological information.

6.3 Methods and materials for containment and cleaning up
Stop leak if possible, without personal risk. Ventilate closed spaces before entering. Contain spilled material with inert materials (E.G. sand, earth). Remove contaminated soil or collect with appropriate absorbent and place into suitable container. Use only non-sparking tools to collect absorbent material. Keep container tightly closed and properly labeled. Properly dispose of in accordance with all applicable regulations. See Section 13, Disposal considerations, for additional information.

Reference to other sections
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Handle in accordance with good hygiene and safe practice. Do not handle until all safety precautions have been read and understood. Do not breathe vapors, mist, or spray. Most vapors are heavier than air and will spread along ground and collect in low or confined areas (drains, basements, tanks). Avoid contact with skin, eyes, and clothing. Wear personal protective equipment as described in Exposure Controls/Personal Protection (Section 8) of the SDS. Wash face, hands, and any exposed skin thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Use only outdoors or in a well-ventilated area. Keep away from heat, sparks, open flames, hot surfaces. Keep container tightly closed. When using do not eat, drink, or smoke. Ground/bond container and receiving equipment. Use explosion proof equipment. Use only non-sparking tools. Take precautionary measures against static discharges. Keep cool.

7.2 Conditions for safe storage, including any incompatibilities

Store and handle in accordance with all current regulations and standards. Keep container tightly closed and properly labeled. Store in a cool, dry area. Protect from damp. Store locked up in a well-ventilated area. Protect from sunlight. Do not reuse drum without recycling or reconditioning in accordance with any applicable federal, state, or local laws. Do not use cutting or welding torches, open flames, or electric arcs on empty or full containers. Keep separated from incompatible substances (see below or Section 10 of the Safety Data Sheet).

Incompatibilities/Materials to Avoid: Ammonia. Caustics. Inorganic Acids.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

1. Dichloromethane (CAS: 75-09-2 EC: 200-838-9)
PEL-TWA (Inhalation): 25 ppm [12.5 ppm Action Level]; USA (OSHA)
OSHA Specifically Regulated Chemicals/Carcinogens/1910.1052 This section applies to all occupational exposures to methylene chloride (MC), Chemical Abstracts Service Registry Number 75-09-2, in general industry, construction and shipyard employment.
PEL-STEL (Inhalation): 125 ppm; USA (OSHA)
STEL (Inhalation): 25 ppm (87 mg/m³); USA (Cal/OSHA)
California permissible exposure limits for chemical contaminants (Title 8, Article 107)/see section 5202
STEL (Inhalation): 125 ppm, (435 mg/m³); USA (Cal/OSHA)
California permissible exposure limits for chemical contaminants (Title 8, Article 107)/see section 5202
TLV®-TWA (Inhalation): 50 ppm; USA (ACGIH)
USA. ACGIH Threshold Limit Values (TLV)/Central Nervous System impairment Carboxyhemoglobinemia Substances for which there is a Biological Exposure Index or Indices (see BEI® section) Confirmed animal carcinogen with unknown relevance to humans

IDLH (Inhalation): 2300 ppm; USA (NIOSH)
USA. ACGIH Threshold Limit Values (TLV)/Central Nervous System impairment Carboxyhemoglobinemia Substances for which there is a Biological Exposure Index or Indices (see BEI® section) Confirmed animal carcinogen with unknown relevance to humans

2. Methyl methacrylate (CAS: 80-62-6)
PEL-TWA (Inhalation): 100 ppm (410 mg/m³) (OSHA)
REL-TWA (Inhalation): 100 ppm (410 mg/m³) (NIOSH)
TLV®-TWA (Inhalation): 50 ppm (ACGIH)
TLV®-STEL (Inhalation): 100 ppm (ACGIH)
IDLH (Inhalation): 1000 ppm (NIOSH)

PEL-TWA (Inhalation): 50 ppm (205 mg/m³) (Cal/OSHA)
PEL-ST (Inhalation): 100 ppm (410 mg/m³) (Cal/OSHA)

3. METHYL ETHYL KETONE (CAS: 78-93-3)
PEL-TWA (Inhalation): 200 ppm (590 mg/m³) (OSHA)
REL-TWA (Inhalation): 200 ppm (590 mg/m³) (NIOSH)
REL-ST (Inhalation): 300 ppm (885 mg/m³) (NIOSH)
TLV-TWA (Inhalation): 200 ppm (590 mg/m³) (ACGIH)
TLV-STEL (Inhalation): 300 ppm (885 mg/m³) (ACGIH)
PEL-TWA (Inhalation): 200 ppm (590 mg/m³) (Cal/OSHA)
PEL-STEL (Inhalation): 300 ppm (885 mg/m³) (Cal/OSHA)

4. Trichloroethylene (CAS: 79-01-6)
PEL-TWA (Inhalation): 100 ppm (537 mg/m³) (OSHA)
PEL-C (Inhalation): 200 ppm; 300 ppm (Peak), for a single time period up to 5 min in any 2 hours (OSHA)
PEL (Inhalation): See Annotated Z-2 ppm (OSHA)
OSHA Annotated Table Z-1, www.osha.gov See 29 CFR 1910.1000 Table Z-2. OSHA Construction and Maritime Industry PEL is 100 ppm (535 mg/m³) as an 8 hr TWA. See 29 CFR 1926.55 Appendix A and 29 CFR 1915.1000 Table Z-Shipyards.
PEL (Inhalation): 10 ppm (54 mg/m³) (ACGIH)
PEL (Inhalation): 25 ppm (135 mg/m³) (ACGIH)
REL (Inhalation): See Annotated Z-2 (NIOSH)
OSHA Annotated Table Z-1, www.osha.gov CARCINOGEN (Ca): REDUCE EXPOSURE TO LOWEST FEASIBLE CONCENTRATION. See Appendix A, NIOSH Potential Occupational Carcinogens and Appendix C, Supplementary Exposure Limits.

IDLH (Inhalation): 1000 ppm (NIOSH)
PEL-TWA (Inhalation): 25 ppm (135 mg/m³) (Cal/OSHA)
PEL-STEL (Inhalation): 100 ppm (537 mg/m³) (Cal/OSHA)
PEL-C (Inhalation): 300 ppm (1611 mg/m³) (Cal/OSHA)

*Exposure limits from OSHA Annotated Table Z-1, www.osha.gov

8.2 Appropriate engineering controls
Good general ventilation should be sufficient to control worker exposure to airborne contaminates. Provide readily accessible eye wash stations and safety showers. If user operations generate dust, fumes, gas, vapor, or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminates below any recommended or statutory limits. Monitoring should be performed regularly in accordance with 29 CFR 1910.1052(d) to determine exposure level(s).

8.3 Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection
Wear safety glasses with side-shields. Wear chemical safety googles and/or a face shield to protect against skin and eye contact when appropriate. Provide an emergency eyewash fountain and quick drench shower in the immediate work area.

Skin protection
Solvent resistant gloves should be worn, such as vitron, polyvinyl alcohol, or equivalent. Contact glove supplier for recommendations.

Body protection
West chemical resistant clothing as appropriate (boots, gloves, lab coat, apron, or coveralls)
Protective Material Types: Trellchem, Tychem, Viton, Polyvinyl alcohol (PVA)

Respiratory protection
Chemical respirator with organic vapor cartridge and full facepiece. When concentrations are above IDLH, or are unknown, or during spills and/or emergencies, use any supplied air respirator that has a facepiece and is operated in pressure-demand mode in combination with an auxiliary self-contained breathing apparatus operated in pressure-demand or other positive-pressure mode.

Thermal hazards
Wear appropriate thermal protective clothing, when necessary.

SECTION 9: Physical and chemical properties and safety characteristics

Physical state	Liquid
Appearance	Clear, syrupy liquid
Color	Clear
Odor	Acetone-like
Odor threshold	No data available.
pH	No data available.
Melting point/freezing point	No data available.
Boiling point or initial boiling point and boiling range	40°C (104°F)
Flash point	-6.1°C (21°F)
Evaporation rate	62 (Ether=1)
Flammability	Liquid- Not applicable
Lower and upper explosion limit/flammability limit	LFL: 1.8% - UFL: 10%
Vapor pressure	355 mm Hg
Relative vapor density	2.93 (air=1 at boiling point)
Density and/or relative density	No data available.
Solubility	slight
Partition coefficient n-octanol/water (log value)	No data available.
Auto-ignition temperature	No data available.
Decomposition temperature	No data available.
Kinematic viscosity	No data available.
Explosive properties	None
Oxidizing properties	No data available.

Supplemental information regarding physical hazard classes
VOC Content: 80-85%

SECTION 10: Stability and reactivity

10.1 Reactivity
This product is not reactive under normal conditions of use, storage, and transportation.

10.2 Chemical stability
Stable at normal temperatures and pressures.

10.3 Possibility of hazardous reactions
Containers may rupture or explode if exposed to heat.
Under normal conditions of storage and use, hazardous polymerization will not occur.

10.4 Conditions to avoid
Avoid static discharge, heat, flames, sparks, and other sources of ignition. Avoid temperatures above the flash point. Avoid moisture contamination. Containers may rupture or explode if exposed to heat. Avoid contact with incompatible substances due to generation of hazardous decomposition products.

10.5 Incompatible materials
Ammonia. Caustics. Strong Acids. Strong Bases. Alkali Metals. Potassium. Sodium. Amines.

10.6 Hazardous decomposition products
Hydrogen chloride, small amounts of phosgene, chloride, oxides of carbon.

SECTION 11: Toxicological information

Information on toxicological effects

Information on Likely Routes of Exposure
Eye contact: Vapors may cause eye irritation. Contact may cause tearing, redness, a stinging or burning feeling, swelling, and blurred vision.

Skin contact: May cause effects ranging from mild to severe pain, and possibly burns, depending on intensity of contact.

Inhalation: May cause upper respiratory tract irritation and central nervous system depression with systems such as confusion, lightheadedness, nausea, vomiting, headache, and fatigue.

Ingestion: May cause nausea or vomiting. If vomiting results in aspiration, chemical pneumonia could occur. Absorption through the gastrointestinal tract may produce central nervous system depression.

Acute toxicity
Components

-Methyl Methacrylate (80-62-6)
Acute Oral Toxicity - LD50 (Rat): 7872 mg/kg
Acute Dermal Toxicity - LD50 (Rabbit): >5 g/kg
Acute Inhalation Toxicity - LC50 (Rat): 4632 ppm, 4 hr

-Methylene Chloride (75-09-2)
Acute Oral Toxicity - LD50 (Rat): 1,600 mg/kg
Acute Dermal Toxicity - LD50 (Rat): >2,000 mg/kg *Toxicity: Dermal exposure results in absorption but at a slower rate than via the oral or inhalation routes of exposure.
Acute Inhalation Toxicity - LC50 (Rat): 76000 mg/mm3, 4 hr

-Methyl Ethyl Ketone (78-93-3)
Acute Oral Toxicity - LD50 (Rat): 2737 mg/kg
Acute Dermal Toxicity - LD50 (Rabbit): 5000 mg/kg
Acute Inhalation Toxicity - LC50 (Rat): 11700 ppm, 4 hr

-Trichloroethylene (79-01-6)
Acute Oral Toxicity - LD50 (Rat): 4290 mg/kg
Acute Dermal Toxicity - LD50 (Rabbit): >20 g/kg
Acute Inhalation Toxicity - LC50 (Rat): 26 mg/L, 4 hr

Skin corrosion/irritation
Category 2- Causes skin irritation.

Serious eye damage/irritation
Category 2A - Serious eye damage/eye irritation.

Respiratory or skin sensitization
Category 1 - May cause an allergic skin reaction

Components
Methyl Methacrylate (80-62-6): May cause an allergic skin reaction.
ACGIH sensitization: METHYL METHACRYLATE (CAS 80-62-6) Sensitizer.

Germ cell mutagenicity
Category 2 - Suspected of causing genetic defects.

Carcinogenicity
Category 1B - May cause cancer.

Components

Methyl Methacrylate (80-62-6):
IARC Monographs. Overall Evaluation of Carcinogenicity: 3 - Not classifiable as to its carcinogenicity to humans
U.S. National Toxicology Program (NTP) Report on Carcinogens: 3 - Not classifiable as to its carcinogenicity to humans.
ACGIH: A4 - Not classifiable as a Human Carcinogen

Methylene Chloride (75-09-2):
IARC Monographs. Overall Evaluation of Carcinogenicity: 2A - Probably carcinogenic to humans.
U.S. National Toxicology Program (NTP) Report on Carcinogens: Reasonably anticipated human carcinogen.
ACGIH: A3 - Confirmed animal carcinogen with unknown relevance to humans.
OSHA Specifically regulated carcinogen: (Methylene Chloride)

Methyl Ethyl Ketone (78-93-3):
IARC Monographs. Overall Evaluation of Carcinogenicity: Not listed.
U.S. National Toxicology Program (NTP) Report on Carcinogens: Not listed.
ACGIH: Not listed.

Trichloroethylene (79-01-6):
IARC Monographs. Overall Evaluation of Carcinogenicity: 2A - Probably carcinogenic to humans.
U.S. National Toxicology Program (NTP) Report on Carcinogens: Known human carcinogen.
ACGIH: A2 - Suspected human carcinogen.

Reproductive toxicity
Category 1 - May damage fertility or the unborn child.

Summary of evaluation of the CMR properties
No data available.

STOT-single exposure
Category 3 - May cause respiratory irritation. May cause drowsiness or dizziness.

STOT-repeated exposure
No data available.

Aspiration hazard
No data available.

Additional information
The following values are calculated based on chapter 3.1 of the GHS document
ATEmix (oral) 2825.00 mg/kg
ATEmix (dermal) 8203.00 mg/kg
ATEmix (inhalation-gas) 10059.00 mg/L
ATEmix (inhalation-dust/mist) 158.00 mg/L
ATEmix (inhalation-vapor) 35.95 mg/L

SECTION 12: Ecological information

Toxicity
Harmful to aquatic life with long lasting effects.

Fish

Methyl Methacrylate (80-62-6):
96 Hr LC50 Lepomis macrochirus: 170 - 206 mg/L [flow-through]
96 Hr LC50 Oncorhnchus mykiss: 79 mg/L [flow-through]
96 Hr LC50 Pimephales promelas: 243 - 275 mg/L [flow through]

96 Hr LC50 Poecilia reticulata: 326.4 - 426.9 mg/L [static]
96 Hr LC50 Pimephales promelas: 125.5 - 190.7 mg/L [static]
96 Hr LC50 Lepomis macrochirus: 153.9 - 341.8 mg/L [static]
96 Hr LC50 Oncorhynchus mykiss: 79 mg/L [static]

Methylene Chloride (75-09-2):
96 Hr LC50 Pimephales promelas: 140.8 - 277.8 mg/L [flow-through]
96 Hr LC50 Pimephales promelas: 262 - 855 mg/L [static]
96 Hr LC50 Lepomis macrochirus: 193 mg/L [static]
96 Hr LC50 Lepomis macrochirus: 193 mg/L [flow-through]
48 Hr LC50 (filter paper) Eisenia foetida: 0.3 mg/cm2
48 Hr LC50 (filter paper) Eisenia foetida: 304 mg/cm2
96 Hr LC50 Fathead minnow: 310 mg/L (static)
96 Hr LC50 Bluegill sunfish: 220 mg/L (static)
96 Hr LC50 Mysid shrimp: 256 mg/L

Methyl Ethyl Ketone (78-93-3):
96 Hr LC50 Pimephales promelas: 3130 - 3320 mg/L [flow-through]

Trichloroethylene (79-01-6):
96 Hr LC50 Pimephales promelas: 31.4 - 71.8 mg/L [flow-through]
96 Hr LC50 Lepomis macrochirus: 39 - 54 mg/L [static]

Algae/aquatic plants

Methyl Methacrylate (80-62-6):
96 Hr EC50 pseudokirchneriella subcapiata: 170 mg/L

Methylene Chloride (75-09-2):
96 Hr EC50 pseudokirchneriella subcapiata: >500 mg/L
72 Hr EC50 pseudokirchneriella subcapiata: >500 mg/L

Methyl Ethyl Ketone (78-93-3):
No data available.
Trichloroethylene (79-01-6):
96 Hr EC50 pseudokirchneriella subcapiata: 175 mg/L
72 Hr EC50 Desmodesubcapiata: 450 mg/L

Crustacea

Methyl Methacrylate (80-62-6):
48 Hr EC50 Daphnia magna: 69 mg/L

Methylene Chloride (75-09-2):
48 Hr EC50 Daphnia magna: 190 mg/L
48 Hr EC50 Daphnia magna: 1532 - 1847 mg/L [static]

Methyl Ethyl Ketone (78-93-3):
48 Hr EC50 Daphnia magna: 4025 - 6440 mg/L [static]

Trichloroethylene (79-01-6):
48 Hr EC50 Daphnia magna: 2.2 mg/L

Persistence and degradability
Not determined

Bioaccumulative potential
Not determined

Mobility in soil
No data available.

Partition Coefficient
Methyl Methacrylate (80-62-6): 0.7
Methylene Chloride (75-09-2): 1.25
Methyl Ethyl Ketone (78-93-3): 0.29
Trichloroethylene (79-01-6): 2.29

Results of PBT and vPvB assessment
No data available.

Endocrine disrupting properties
No data available.

Other adverse effects
None

SECTION 13: Disposal considerations

Disposal methods

Product disposal
As the US EPA, state, regional, and other regulatory agencies may have jurisdiction over the disposal of your facility's hazardous waste, it is incumbent upon you, the hazardous waste generator, to learn of and satisfy all of the requirements which affect you. Dispose of the hazardous waste at a properly licensed and/or permitted disposal site or facility. Ensure all conformity to all applicable hazardous waste disposal regulations.

The US EPA Hazardous Waste Numbers which follow are applicable to this unadulterated product if the product enters the "waste stream." Refer to Title 40 of the Code of Federal Regulations, Part 261 (40 CFR 261). This part of the Code identifies solid wastes which are subject to regulation under various sections of the Code and which are subject to notification requirements of Section 3010 of the Resource Conservation and Recovery Act (RCRA).

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

Waste treatment
Disposal should be in accordance with applicable regional, national, and local laws and regulations. Dispose of surplus or product waste via a licensed waste disposal contractor. Incineration or landfill should only be considered when recycling is not feasible.

Sewage disposal
Disposal should be in accordance with applicable regional, national, and local laws and regulations. Waste should not be disposed of untreated to the sewer unless fully compliant with requirements of all authorities with jurisdiction.

SECTION 14: Transport information

DOT (US)
UN Number: UN1133
Class: 3
Packing Group: II
Proper Shipping Name: Adhesives

IMDG
UN Number: UN1133
Class: 3
Packing Group: II
Proper Shipping Name: Adhesives

IATA
UN Number: UN1133
Class: 3
Packing Group: II
Proper Shipping Name: Adhesives

SECTION 15: Regulatory information

15.1 Safety, health, and environmental regulations specific for the product in question

Toxic Substances Control Act (TSCA) Restrictions of Use
Methylene Chloride (CAS 75-09-2): This chemical/product is not and cannot be distributed in commerce (as defined in TSCA section 3(5)) or processed (as defined in section 3 (13)) for consumer paint or coating removal.

OSHA Specifically Regulated Substances (29 CFR 1910.1001–1053)
Methylene Chloride (75-09-2): Listed

California Prop. 65 Components
Dichloromethane (Methylene Chloride) 75-09-2 April 1, 1988 Cancer
TRICHLOROETHYLENE (79-01-6) April 4, 1998 Cancer
TRICHLOROETHYLENE (79-01-6) January 31, 2014 Male Reproductive Toxicity, Developmental Toxicity

US FDA-prohibited cosmetic ingredient (21 CFR 700.19)
Chemical name: Methylene chloride
CAS: 75-09-2
It causes cancer in animals and is likely to be harmful to human health, too (21 CFR 700.19).

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List
Methyl Methacrylate (80-62-6): Listed
Methylene Chloride (75-09-2): Listed
Methyl Ethyl Ketone (78-93-3): Listed
Trichloroethylene (79-01-6): Listed

CERCLA Reportable Quantities (RQ)
Methyl Methacrylate (CAS 80-62-6): 1000 lb
Dicholoromethane (CAS 75-09-2): 1000 lb
Methyl Ethyl Ketone (CAS 78-93-3): 5000 lb
Trichloroethylene (CAS 79-01-6): 100 lb

Clean Water Act (CWA) Section 112(r) (40 CFR 68.130)

Chemical Name	CWA – Reportable Quantities RQs	CWA – Toxic Pollutants	CWA – Priority Pollutants	CWA – Hazardous Substances
Methyl Methacrylate (CAS: 80-62-6)	1000 lb	-	-	Listed
Dicholoromethane (CAS: 75-09-2)	-	Listed	Listed	-
Trichloroethylene (CAS 79-01-6)	100 lb	Listed	Listed	Listed

State Right To Know Components

Product	California	Massachusetts	New Jersey	New York	Pennsylvania	Rhode Island
Methyl Methacrylate (CAS: 80-62-6)	Listed	-	Listed	Listed	Listed	Listed

Dicholoromethane (CAS: 75-09-2)	Listed	Listed	Listed	Listed	Listed	Listed
Methyl Ethyl Ketone (CAS 78-93-3)	Listed	-	Listed	Listed	Listed	Listed
Trichloroethylene (CAS 79-01-6)	Listed	Listed	Listed	Listed	Listed	Listed

SARA 313 Components

Chemical Name	CAS No.	EC No.	Concentration (weight)	SARA 313 – Threshold Values
Methyl Methacrylate	80-62-6	201-297-1	30 – 40 %	1.0 %
Methylene Chloride	75-09-2	200-838-9	25 – 40 %	0.1 %
Trichloroethylene	79-01-6	201-167-4	2 – 10 %	0.1 %

International Inventories

Product	TSCA	DSL /NDSL	EINECS /ELINCS	ENCS	IECSC	PICCS	AICS	NZIoC	TW	KECI
Methyl Methacrylate (CAS: 80-62-6)	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present
Dicholoromethane (CAS: 75-09-2)	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present
Methyl Ethyl Ketone (CAS 78-93-3)	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present
Trichloroethylene (CAS 79-01-6)	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present

Legend
P – Present on list
X – Not present on list
TSCA – United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL – Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS – European Inventory of Existing Chemical Substances or European List of Notified Chemical Substances
ENCS – Japanese ENCS (Existing & New Chemical Substances) Inventory
IECSC – Inventory of Existing Chemicals Substances Produced or Imported in China (IECSC)
PICCS – Philippines Inventory of Chemicals and Chemical Substances
AICS – Australian Inventory of Chemical Substances)
NZIoc – New Zealand Inventory of Chemicals
TW – Taiwan National Chemical Inventory
KECI – Korean Existing Chemicals Inventory

15.2 Chemical Safety Assessment
Not determined.

SECTION 16: Other information

This SDS complies with 29 CFR 1910.1200 (Hazard Communication Standard) Important: Read this SDS before handling & disposing of this product. Pass this information on to employees, customers, & users of this product.

16.1 Further information/disclaimer
The supplier disclaims all expressed or implied warranties of merchantability or fitness for a specific use, with respect to the product or the information provided herein. All information appearing herein is based upon data obtained from manufacturers and/or recognized technical resources. While the information is believed to be accurate, we make no

representations as to its accuracy or sufficiency. Conditions of use are beyond our control, and therefore users are responsible for verifying the data under their own operating conditions to determine whether the product is suitable for their particular purposes and they assume all risks of their handling and disposal of the product. Users also assume all risks in regards to the publication or use of, or reliance upon, information contained herein. This information relates only to the product designated herein, and does not relate to its use in combination with any other material or process.

16.2 Preparation information

Sources of key data used to compile the Safety Data Sheet: Internal technical data, data from raw material SDSs, EPA CompTox Chemical Dashboard (comptox.epa.gov), EPA Substance Registry Services (SRS), OSHA Occupational Chemical Database (https://www.osha.gov/chemicaldata), OSHA 29CFR 1910.1200 Hazard Communication (https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.1200), European Chemicals Agency (ECHA) C&L Inventory Database (echa.europa.eu), CAMEO Chemicals (cameochemicals.noaa.gov), Code of Federal Regulations CFR Title 49 (https://www.ecfr.gov/current/title-49), California Proposition 65 (https://www.p65warnings.ca.gov/), California Proposition 65 List (https://oehha.ca.gov/proposition-65/proposition-65-list), National Library of Medicine (https://pubchem.ncbi.nlm.nih.gov/), TSCA Chemical Substances Inventory (https://www.epa.gov/tsca-inventory/how-access-tsca-inventory), OECD eChem Portal Search Results (https://www.echemportal.org/echemportal/substance-search).

Issue Date: 07/13/2022
Revision Date: N/A
Revision Note: First issue.