

1 Identification

- **Product identifier**
- **Trade name:** 39537 Weld Bond Adhesive
- **Article number:** 39537
- **Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** Assembly adhesive
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
SEM Products Inc.
1685 Overview Drive
Rock Hill, SC 29730
803 207 8225
- **Information department:**
cust_care@semproducts.com : SEM Products, Inc. 1685 Overview Dr. Rock Hill, SC 29730 : phone 1-800-831-1122, M - TH 7am - 4pm EDT
- **Emergency telephone number:** CHEMTREC 1-800-424-9300

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 Flame

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



GHS08 Health hazard

Carc. 2 H351 Suspected of causing cancer.



GHS05 Corrosion

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

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

STOT SE 3 H335 May cause respiratory irritation.

- **Label elements**

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

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· Hazard pictograms



· Signal word *Danger*

· Hazard-determining components of labeling:

methyl methacrylate
PHOSPHATE ESTER OF 2-HYDROXYETHYL METHACRYLATE
2-hydroxyethyl methacrylate
methacrylic acid

· Hazard statements

H225 Highly flammable liquid and vapor.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H317 May cause an allergic skin reaction.
H351 Suspected of causing cancer.
H335 May cause respiratory irritation.

· Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P241 Use explosion-proof electrical/ventilating/lighting/equipment.
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· Hazard description:

· WHMIS-symbols:

B2 - Flammable liquid
D2B - Toxic material causing other toxic effects



· Classification system:

· NFPA ratings (scale 0 - 4)



· HMIS-ratings (scale 0 - 4)

HEALTH	1	Health = 1
FIRE	3	Fire = 3
REACTIVITY	0	Reactivity = 0

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

3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:**
Mixture: consisting of the following components.
Weight percentages

· **Dangerous components:**

80-62-6	methyl methacrylate	40 - 60%
9003-56-9	ACRYLONITRILE/BUTADIENE RESIN	13 - 30%
868-77-9	2-hydroxyethyl methacrylate	1.5 - 5%
97-88-1	n-butyl methacrylate	1.5 - 5%
79-41-4	methacrylic acid	1-1.5%
7646-85-7	zinc chloride	1-1.5%
52628-03-2	PHOSPHATE ESTER OF 2-HYDROXYETHYL METHACRYLATE	1-1.5%
56-23-5	carbon tetrachloride	≤1%

4 First-aid measures

- **Description of first aid measures**
- **After inhalation:**
Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** If symptoms persist consult doctor.
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** CO₂, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards arising from the substance or mixture**
During heating or in case of fire poisonous gases are produced.
- **Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

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6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Mount respiratory protective device.
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents
- **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.

7 Handling and storage

- **Precautions for safe handling**
No special measures required.
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **Information about protection against explosions and fires:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Keep receptacle tightly sealed.
Store in cool, dry conditions in well sealed receptacles.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**

· **Components with limit values that require monitoring at the workplace:**

80-62-6 methyl methacrylate

EL	Short-term value: 100 ppm Long-term value: 50 ppm
S	

EV	Short-term value: 100 ppm Long-term value: 50 ppm
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97-88-1 n-butyl methacrylate	
EL	Long-term value: 50 ppm
79-41-4 methacrylic acid	
EL	Long-term value: 20 ppm
EV	Long-term value: 70 mg/m ³ , 20 ppm
7646-85-7 zinc chloride	
EL	Short-term value: 2 mg/m ³ Long-term value: 1 mg/m ³
EV	Short-term value: 2 mg/m ³ Long-term value: 1 mg/m ³ fume
56-23-5 carbon tetrachloride	
EL	Long-term value: 2 ppm Skin; ACGIH A2; IARC 2B
EV	Short-term value: 3 ppm Long-term value: 2 ppm Skin

· **Additional information:** The lists that were valid during the creation were used as basis.

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

· **Breathing equipment:**

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

· **Protection of hands:**

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

· **Material of gloves**

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

· **Penetration time of glove material**

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

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· Eye protection:



Tightly sealed goggles

9 Physical and chemical properties

· Information on basic physical and chemical properties

· General Information

· Appearance:

Form:	Liquid
Color:	According to product specification
· Odor:	Characteristic
· Odour threshold:	Not determined.

· pH-value: Not determined.

· Change in condition

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	101 °C

· Flash point: 10 °C

· Flammability (solid, gaseous): Not applicable.

· Ignition temperature: 430 °C

· Decomposition temperature: Not determined.

· Auto igniting: Product is not selfigniting.

· Danger of explosion: In use, may form flammable/explosive vapour-air mixture.

· Explosion limits:

Lower:	2.1 Vol %
Upper:	12.5 Vol %

· Vapor pressure at 20 °C: 47 hPa

· Density at 20 °C: 0.99 g/cm³

· Relative density: Not determined.

· Vapour density: Not determined.

· Evaporation rate: Not determined.

· Solubility in / Miscibility with

Water: Not miscible or difficult to mix.

· Partition coefficient (n-octanol/water): Not determined.

· Viscosity:

Dynamic: Not determined.

Kinematic: Not determined.

· Solvent content:

Organic solvents: 0.1 %

VOC content: 0.1 %

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Solids content: 96.1 %
Other information No further relevant information available.

10 Stability and reactivity

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

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**

80-62-6 methyl methacrylate

Oral	LD50	7872 mg/kg (rat)
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7646-85-7 zinc chloride

Oral	LD50	350 mg/kg (rat)
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56-23-5 carbon tetrachloride

Oral	LD50	2350 mg/kg (rat)
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Dermal	LD50	5070 mg/kg (rat)
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- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.
- **Sensitization:** Sensitization possible through skin contact.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Irritant

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**

80-62-6	methyl methacrylate	3
56-23-5	carbon tetrachloride	2B
1333-86-4	Carbon black	2B

· **NTP (National Toxicology Program)**

56-23-5	carbon tetrachloride	R
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· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.



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12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Harmful to fish
- **Additional ecological information:**
- **General notes:**
Water hazard class 2 (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.
Harmful to aquatic organisms
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- **UN-Number**
- **DOT, TDG, IMDG, IATA** UN1133
- **UN proper shipping name**
- **DOT** Adhesives
- **TDG** 1133 Adhesives, special provision 640D
- **IMDG, IATA** ADHESIVES
- **Transport hazard class(es)**
- **DOT**
- 
- **Class** 3 Flammable liquids

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· Label · TDG, IMDG, IATA	3
	
· Class · Label	3 Flammable liquids 3
· Packing group · DOT, TDG, IMDG, IATA	II
· Environmental hazards: · Marine pollutant:	No
· Special precautions for user · EMS Number:	Warning: Flammable liquids F-E,S-D
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information: · DOT · Quantity limitations	On passenger aircraft/rail: 5 L On cargo aircraft only: 60 L
· TDG · Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· IMDG · Limited quantities (LQ) · Excepted quantities (EQ)	5L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· UN "Model Regulation":	UN1133, Adhesives, special provision 640D, 3, II

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**
· **Sara**

· **Section 355 (extremely hazardous substances):**
None of the ingredient is listed.

· **Section 313 (Specific toxic chemical listings):**

80-62-6	methyl methacrylate
7646-85-7	zinc chloride
56-23-5	carbon tetrachloride

· **TSCA (Toxic Substances Control Act):**
80-62-6 methyl methacrylate

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9003-56-9	ACRYLONITRILE/BUTADIENE RESIN
868-77-9	2-hydroxyethyl methacrylate
97-88-1	n-butyl methacrylate
79-41-4	methacrylic acid
7646-85-7	zinc chloride
120-56-9	TRIETHYLENEGLYCOL DIBENZOATE
27138-31-4	BENZOIC ACID ESTER
52628-03-2	PHOSPHATE ESTER OF 2-HYDROXYETHYL METHACRYLATE
56-23-5	carbon tetrachloride
1333-86-4	Carbon black

· **Proposition 65**

· **Chemicals known to cause cancer:**

9003-56-9	ACRYLONITRILE/BUTADIENE RESIN
56-23-5	carbon tetrachloride
1333-86-4	Carbon black

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogeny categories**

· **EPA (Environmental Protection Agency)**

80-62-6	methyl methacrylate	E, NL
7646-85-7	zinc chloride	D, I, II
56-23-5	carbon tetrachloride	L

· **TLV (Threshold Limit Value established by ACGIH)**

80-62-6	methyl methacrylate	A4
56-23-5	carbon tetrachloride	A2
1333-86-4	Carbon black	A4

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

56-23-5	carbon tetrachloride
1333-86-4	Carbon black

· **Canadian substance listings:**

· **Canadian Domestic Substances List (DSL)**

80-62-6	methyl methacrylate
9003-56-9	ACRYLONITRILE/BUTADIENE RESIN
868-77-9	2-hydroxyethyl methacrylate
97-88-1	n-butyl methacrylate
79-41-4	methacrylic acid
7646-85-7	zinc chloride
120-56-9	TRIETHYLENEGLYCOL DIBENZOATE

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27138-31-4	BENZOIC ACID ESTER
52628-03-2	PHOSPHATE ESTER OF 2-HYDROXYETHYL METHACRYLATE
56-23-5	carbon tetrachloride
1333-86-4	Carbon black

· **Canadian Ingredient Disclosure list (limit 0.1%)**

56-23-5	carbon tetrachloride
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· **Canadian Ingredient Disclosure list (limit 1%)**

80-62-6	methyl methacrylate
868-77-9	2-hydroxyethyl methacrylate
79-41-4	methacrylic acid
7646-85-7	zinc chloride

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

· **Hazard pictograms**



GHS02 GHS05 GHS07 GHS08

· **Signal word** Danger

· **Hazard-determining components of labeling:**

methyl methacrylate
PHOSPHATE ESTER OF 2-HYDROXYETHYL METHACRYLATE
2-hydroxyethyl methacrylate
methacrylic acid

· **Hazard statements**

H225 Highly flammable liquid and vapor.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H317 May cause an allergic skin reaction.
H351 Suspected of causing cancer.
H335 May cause respiratory irritation.

· **Precautionary statements**

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P241 Use explosion-proof electrical/ventilating/lighting/equipment.
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

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

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

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Printing date 08/14/2014

Reviewed on 08/14/2014

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- **Department issuing MSDS:** Environment protection department.
- **Contact:** Steve Gaver
- **Date of preparation / last revision** 08/14/2014 / 1
- **Abbreviations and acronyms:**
 - ICAO: International Civil Aviation Organization
 - IMDG: International Maritime Code for Dangerous Goods
 - DOT: US Department of Transportation
 - IATA: International Air Transport Association
 - ACGIH: American Conference of Governmental Industrial Hygienists
 - EINECS: European Inventory of Existing Commercial Chemical Substances
 - ELINCS: European List of Notified Chemical Substances
 - CAS: Chemical Abstracts Service (division of the American Chemical Society)
 - NFPA: National Fire Protection Association (USA)
 - HMIS: Hazardous Materials Identification System (USA)
 - WHMIS: Workplace Hazardous Materials Information System (Canada)
 - VOC: Volatile Organic Compounds (USA, EU)
 - LC50: Lethal concentration, 50 percent
 - LD50: Lethal dose, 50 percent
 - Flam. Liq. 2: Flammable liquids, Hazard Category 2
 - Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
 - Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1
 - Skin Sens. 1: Sensitisation - Skin, Hazard Category 1
 - Carc. 2: Carcinogenicity, Hazard Category 2
 - STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3
- *** Data compared to the previous version altered.**

CA