



1 Identification

- **Product identifier**
- **Trade name:** 39537 Weld Bond Adhesive
- **Article number:** 39537
- **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 identification

- **Classification of the substance or mixture**



GHS02 Flame

Flammable Liquids - Category 2

H225 Highly flammable liquid and vapour.



GHS08 Health hazard

Carcinogenicity – Category 2

H351 Suspected of causing cancer.



GHS05 Corrosion

Serious Eye Damage - Category 1

H318 Causes serious eye damage.



GHS07

Skin Irritation - Category 2

H315 Causes skin irritation.

Skin Sensitizer - Category 1

H317 May cause an allergic skin reaction.

Specific Target Organ Toxicity - Single Exposure - Category 3

H335 May cause respiratory irritation.

- **Label elements**

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

(Contd. on page 2)

Safety Data Sheet

according to HPR, Schedule 1



Printing date 06/20/2017

Reviewed on 06/20/2017

Trade name: 39537 Weld Bond Adhesive

(Contd. of page 1)

· **Hazard pictograms**

GHS02 GHS05 GHS07 GHS08

· **Signal word** *Danger*· **Hazard-determining components of labeling:**

methyl methacrylate
 PHOSPHATE ESTER OF 2-HYDROXYETHYL METHACRYLATE
 ACRYLONITRILE/BUTADIENE RESIN
 2-hydroxyethyl methacrylate
 n-butyl methacrylate

· **Hazard statements**

H225 Highly flammable liquid and vapour.
 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**

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.
 P240 Ground and bond container and receiving equipment.
 P241 Use explosion-proof [electrical/ventilating/lighting] equipment.
 P242 Use non-sparking tools.
 P243 Take actions to prevent static discharges.
 P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
 P264 Wash thoroughly after handling.
 P271 Use only outdoors or in a well-ventilated area.
 P272 Contaminated work clothing should not be allowed out of the workplace.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or 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/doctor.
 P321 Specific treatment (see on this label).
 P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
 P362+P364 Take off contaminated clothing and wash it before reuse.
 P370+P378 In case of fire: Use for extinction: CO₂, powder or water spray.
 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 in accordance with local/regional/national/international regulations.

(Contd. on page 3)

CA

Trade name: 39537 Weld Bond Adhesive

(Contd. of page 2)

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



Health = 1

Fire = 3

Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**



Health = 1

Fire = 3

Reactivity = 0

3 Composition/Information on ingredients

· **Chemical characterization: Mixtures**

· **Description:**

Mixture: consisting of the following components.

Weight percentages

· **Dangerous components:**

80-62-6	methyl methacrylate	30-60% w/w
9003-56-9	ACRYLONITRILE/BUTADIENE RESIN	10-30% w/w
868-77-9	2-hydroxyethyl methacrylate	1-5% w/w
97-88-1	n-butyl methacrylate	1-5% w/w
7646-85-7	zinc chloride	0.5-1.5% w/w
79-41-4	methacrylic acid	0.5-1.5% w/w
52628-03-2	PHOSPHATE ESTER OF 2-HYDROXYETHYL METHACRYLATE	0.5-1.5% w/w
27138-31-4	BENZOIC ACID ESTER	0.5-1.5% w/w
56-23-5	carbon tetrachloride	≤ 1% w/w

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. Then consult a doctor.

· **After swallowing:** If symptoms persist consult doctor.

· **Information for 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.



Trade name: 39537 Weld Bond Adhesive

(Contd. of page 3)

5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:** 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).
Use neutralizing agent.
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **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

- **Handling:**
- **Precautions for safe handling** No special measures required.
- **Information about protection against explosions and fires:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
- **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.

(Contd. on page 5)



Trade name: 39537 Weld Bond Adhesive

(Contd. of page 4)

· **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

97-88-1 n-butyl methacrylate

EL Long-term value: 50 ppm

7646-85-7 zinc chloride

EL Short-term value: 2 mg/m³
Long-term value: 1 mg/m³
fume

EV Short-term value: 2 mg/m³
Long-term value: 1 mg/m³
fume

79-41-4 methacrylic acid

EL Long-term value: 20 ppm

EV Long-term value: 70 mg/m³, 20 ppm

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 skin.

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.

(Contd. on page 6)



Trade name: 39537 Weld Bond Adhesive

(Contd. of page 5)

· **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.

· **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
Odor 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:	0.98506 g/cm ³
Relative density	Not determined.
Vapor 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.

(Contd. on page 7)



Trade name: 39537 Weld Bond Adhesive

(Contd. of page 6)

- | | |
|----------------------------|--|
| · Viscosity: | |
| Dynamic: | Not determined. |
| Kinematic: | Not determined. |
| · Solvent content: | |
| Organic solvents: | 0.1 % |
| VOC content: | 0.1 % |
| · Solids content: | |
| | 96.1 % |
| · Other information | |
| | No further relevant information available. |

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **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)
------	------	------------------

7646-85-7 zinc chloride

Oral	LD50	350 mg/kg (rat)
------	------	-----------------

56-23-5 carbon tetrachloride

Oral	LD50	2350 mg/kg (rat)
------	------	------------------

Dermal	LD50	5070 mg/kg (rat)
--------	------	------------------

- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Strong irritant with the danger of severe eye injury.
- **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

(Contd. on page 8)

CA

Safety Data Sheet

according to HPR, Schedule 1



Printing date 06/20/2017

Reviewed on 06/20/2017

Trade name: 39537 Weld Bond Adhesive

(Contd. of page 7)

· **NTP (National Toxicology Program)**

56-23-5 carbon tetrachloride

R


12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **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.
 Must not reach bodies of water or drainage ditch undiluted or unneutralized.
 Danger to drinking water if even small quantities leak into the ground.
- **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 | UN1133 |
| · DOT, TDG, IMDG, IATA | |
| · UN proper shipping name | Adhesives |
| · DOT | 1133 Adhesives, special provision 640D |
| · TDG | ADHESIVES |
| · IMDG, IATA | |
| · Transport hazard class(es) | |
| · DOT | |
|  | |
| · Class | 3 Flammable liquids |

(Contd. on page 9)

CA

Safety Data Sheet

according to HPR, Schedule 1



Printing date 06/20/2017

Reviewed on 06/20/2017

Trade name: 39537 Weld Bond Adhesive

(Contd. of page 8)

· **Label** 3
 · **TDG, IMDG, IATA**



· **Class** 3 Flammable liquids
 · **Label** 3

· **Packing group**
 · **DOT, TDG, IMDG, IATA** II

· **Environmental hazards:**
 · **Marine pollutant:** No

· **Special precautions for user** Warning: Flammable liquids
 · **EMS Number:** F-E,S-D
 · **Segregation groups** Acids, liquid halogenated hydrocarbons
 · **Stowage Category** B

· **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)** 5L
 · **Excepted quantities (EQ)** Code: E2
 Maximum net quantity per inner packaging: 30 ml
 Maximum net quantity per outer packaging: 500 ml

· **UN "Model Regulation":** UN 1133 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

(Contd. on page 10)

CA

Safety Data Sheet

according to HPR, Schedule 1



Printing date 06/20/2017

Reviewed on 06/20/2017

Trade name: 39537 Weld Bond Adhesive

(Contd. of page 9)

· **TSCA (Toxic Substances Control Act):**

80-62-6	methyl methacrylate
9003-56-9	ACRYLONITRILE/BUTADIENE RESIN
868-77-9	2-hydroxyethyl methacrylate
97-88-1	n-butyl methacrylate
7646-85-7	zinc chloride
120-56-9	TRIETHYLENEGLYCOL DIBENZOATE
79-41-4	methacrylic acid
52628-03-2	PHOSPHATE ESTER OF 2-HYDROXYETHYL METHACRYLATE
27138-31-4	BENZOIC ACID ESTER
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
7646-85-7	zinc chloride
120-56-9	TRIETHYLENEGLYCOL DIBENZOATE
79-41-4	methacrylic acid
52628-03-2	PHOSPHATE ESTER OF 2-HYDROXYETHYL METHACRYLATE
27138-31-4	BENZOIC ACID ESTER
56-23-5	carbon tetrachloride
1333-86-4	Carbon black

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

56-23-5	carbon tetrachloride
---------	----------------------

· **Canadian Ingredient Disclosure list (limit 1%)**

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

· **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

(Contd. on page 11)

CA



Trade name: 39537 Weld Bond Adhesive

(Contd. of page 10)

ACRYLONITRILE/BUTADIENE RESIN

2-hydroxyethyl methacrylate

n-butyl methacrylate

· **Hazard statements**

H225 Highly flammable liquid and vapour.

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**

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.

P240 Ground and bond container and receiving equipment.

P241 Use explosion-proof [electrical/ventilating/lighting] equipment.

P242 Use non-sparking tools.

P243 Take actions to prevent static discharges.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P264 Wash thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P272 Contaminated work clothing should not be allowed out of the workplace.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or 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/doctor.

P321 Specific treatment (see on this label).

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P362+P364 Take off contaminated clothing and wash it before reuse.

P370+P378 In case of fire: Use for extinction: CO₂, powder or water spray.

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 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.

· **Department issuing SDS:** Environment protection department.

· **Contact:** Steve Gaver (sgaver@semproducts.com)

· **Date of preparation / last revision** 06/20/2017 / 6

· **Abbreviations and acronyms:**

ICAO: International Civil Aviation Organisation

IMDG: International Maritime Code for Dangerous Goods

(Contd. on page 12)



Printing date 06/20/2017

Reviewed on 06/20/2017

Trade name: 39537 Weld Bond Adhesive

(Contd. of page 11)

DOT: US Department of Transportation
IATA: International Air Transport Association
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)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative

· *** Data compared to the previous version altered.**

CA