

# Acrylic Adhesive AC-501-RE Part B

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## 1. IDENTIFICATION OF THE CHEMICAL AND SUPPLIER

### 1.1 Product identifier

Product Name : Acrylic Adhesive AC-501-RE Part B

### 1.2 Manufacturer or supplier's details

Company : ABRO INDUSTRIES, INC.

Office Address : 13580 Blackthorn Court, South Bend, IN 46628, USA, 311200

Telephone number : +574-232-8289

Fax number : +574-232-8289

EMERGENCY 24-  
HR TELEPHONE : +Chemtrec: US/Canada 1-800-424-9300  
+International +1-703-527-3887

### 1.3 Recommended use of the chemical and restrictions on use

Recommended Use : Bonding and sealing

Advised Against : At this moment in time we do not have information on use restrictions. They will be included in this document when available.

## 2. HAZARDS IDENTIFICATION

### 2.1 GHS Classification

Skin Corr. : Cate. 1C

Skin Sens. : Cate. 1

Eye dam. : Cate. 1

STOT SE : Cate. 3

### 2.2 GHS Labelling

Hazard pictograms :

**Signal Word** : Danger

#### Hazard Statements

H314 : Causes severe skin burns and eye damage.

H317 : May cause an allergic skin reaction.

H318 : Causes serious eye damage.

H335 : May cause respiratory irritation.

#### Precautionary Stat

#### Prevention

P264 : Wash thoroughly after handling.

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

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

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

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

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P260 : Do not breathe dust/fume/gas/mist/vapours/spray.

### Response

P310 : Immediately call a POISON CENTER or doctor/physician.

P321 : Specific treatment (see the instructions on this label).

P302+P352 : IF ON SKIN: Wash with plenty of soap and water.

P312 : Call a POISON CENTER or doctor/physician if you feel unwell.

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

P363 : Wash contaminated clothing before reuse.

P305+P351+P338 : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P304+P340 : IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

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

P301+P330+P331 : IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

### Storage

P403+P233 : Store in a well-ventilated place. Keep container tightly closed.

P405 : Store locked up.

### Disposal

P501 : Dispose of contents/ container in accordance with local/regional/ national/international Regulations.

## 2.3 Hazard description

### Physical and chemical hazards

No information available

### Health hazards

Inhaled : Inhalation of the product may produce adverse health effects or irritation of the respiratory tract following discomfort.

Ingestion : Accidental ingestion of the product may be harmful to the health of the individual.

Skin Contact : Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects.

Eye : This product may cause temporary discomfort following direct contact with the eye.

### Environmental hazards

Environmental hazards : Please refer to Section 12 of the SDS.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substance/mixture

Mixture

### 3.2 Components

Component	CAS-No.	Concentration(Wt%)	Classification
Methacrylic acid	79-41-4	10~30	Skin Corr. 1A H314; Acute Tox. 4 H302; Acute Tox. 4 H312
ABS Resins	9003-56-9	20~40	Not classified
Methyl methacrylate	80-62-6	≥30	Flam. Liq. 2 H225; Skin Irrit. 2 H315; Skin Sens. 1 H317; ST OT SE 3 H335
Tetramethyl-2-thiourea	2782-91-4	1~10	Acute Tox. 4 H302

\*The specific chemical identity and/or exact percentage (concentration) of this composition has been withheld as a trade secret.

## 4. FIRST AID MEASURES

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## 4.1 Description of necessary first aid measures

- General advice : Immediate medical attention is required. Show this safety data sheet (SDS) to the doctor in attendance.
- Eye contact : Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician if feel uncomfortable.
- Skin contact : Take off contaminated clothing and shoes immediately.  
Wash off with plenty of water for at least 15 minutes and consult a physician if feel uncomfortable.
- Ingestion : DO NOT induce vomiting.  
Never give anything by mouth to an unconscious person.  
Call a physician or Poison Control Center immediately.
- Inhalation : Move victim into fresh air. If breathing is difficult, give oxygen.  
Do not use mouth to mouth resuscitation if victim ingested or inhaled the substance.  
If not breathing, give artificial respiration and consult a physician immediately.

## 4.2 Most important symptoms and effects, both acute and delayed

Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure. May cause an allergic skin reaction, serious eye irritation, damages to organs through prolonged or repeated exposure. Ingestion is likely to be harmful or have adverse effects.

## 4.3 Protection of first-aiders

First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists.

Ensure that medical personnel are aware of the substance involved.

Take precautions to protect themselves and prevent spread of contamination.

## 4.4 Notes to physician

Treat symptomatically and supportively.

Symptoms may be delayed.

# 5. FIREFIGHTING MEASURES

## 5.1 Extinguishing media

- Suitable extinguishing media : Use extinguishing agent suitable for type of surrounding fire.
- Unsuitable extinguishing media : There is no restriction on the type of extinguisher which may be used.

## 5.2 Specific hazards arising from the substance or mixture

Development of hazardous combustion gases or vapor possible in the event of fire.  
May expand or decompose explosively when heated or involved in fire.

## 5.3 Advice for firefighters

As in any fire, wear self-contained breathing apparatus (MSHA/NIOSH approved or equivalent) and full protective gear.  
Fight fire from a safe distance, with adequate cover.  
Prevent fire extinguishing water from contaminating surface water or the ground water system.

# 6. ACCIDENTAL RELEASE MEASURES

## 6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Keep unprotected persons away.  
Follow safe handling advice and personal protective equipment recommendations.  
Avoid contact with skin, eyes and inhalation of vapors.  
Remove all sources of ignition.  
Use personal protection recommended in Section 8.

## 6.2 Environmental precautions

Discharge into the environment must be avoided.  
Prevent further leakage or spillage if safe to do so.  
Retain and dispose of contaminated wash water.  
Local authorities should be advised if significant spillages cannot be contained.

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### 6.3 Methods and materials for containment and cleaning up

Soak up with inert absorbent material.

For large spills, provide dyking or other appropriate containment to keep material from spreading. If dyked material can be pumped, store recovered material in appropriate container.

Clean up remaining materials from spill with suitable absorbent.

Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are appl

Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are appl

### 6.4 Reference to other sections

See Section 7, Ssection 8, Section 13, Senction 15 for more information.

## 7. HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Handling is performed in a well ventilated place.

Wear suitable protective equipment.

Avoid contact with skin and eyes.

Keep away from heat/sparks/open flames/ hot surfaces.

Take care to prevent spills, waste and minimize release to the environment.

Persons susceptible to allergic reactions should not handle this product.

### 7.2 Precautions for storage

Keep containers tightly closed.

Keep containers in a dry, cool and well-ventilated place.

Keep away from heat/sparks/open flames/hot surfaces.

Store away from incompatible materials and foodstuff containers.

### 7.3 Materials to avoid

Strong oxidizing agents, Organic peroxides, Acids, Foodstuffs, Explosives, Hot, Heat.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

#### Occupational Exposure limit values

Component	CAS No	PC-TWA/ppm	PC-TWA/mg/m3	PC-STEL/ppm	PC-STEL/mg/m3	Country/Region
Methyl methacrylate	80-62-6	50	205	100	410	South Korea
Methyl methacrylate	80-62-6	50	210	100	420	Germany (AGS)
Methyl methacrylate	80-62-6	100	410			USA - OSHA
Methyl methacrylate	80-62-6	50		100		Ireland
Methyl methacrylate	80-62-6	25	102	50	204	Denmark
Methyl methacrylate	80-62-6	50	208	100	416	Australia
Methacrylic acid	79-41-4	5	18	10	36	Germany (DFG)
Methacrylic acid	79-41-4	20	70	40	140	Denmark
Methacrylic acid	79-41-4	20	70			Australia
Methacrylic acid	79-41-4	20	70			South Korea
Methacrylic acid	79-41-4	20	70			USA - NIOSH

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Methacrylic acid	79-41-4	20	70	40	140	Ireland
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### Biological limit values

Biological limit values : No data available

### Monitoring methods

EN 14042 Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents. GBZ/T 300.1~GBZ/T 300.160-2017; GBZ/T 300.161~GBZ/T 300.164-2018 Determination of toxic substances in workplace air (Series standard).

### 8.2 Engineering controls

- Ensure adequate ventilation, especially in confined areas.
- Ensure that eyewash stations and safety showers are close to the workstation location.
- Use explosion-proof electrical/ventilating/lighting/equipment.
- Set up emergency exit and necessary risk-elimination area.

### 8.3 Personal protection equipment

Personal protective equipment

- Respiratory protection: If exposure limits are exceeded or if irritation or other symptoms are experienced, use a full-face respirator with multi-purpose combination (US) or type AXBEK (EN 14387) respirator cartridges.
- Hand protection : Wear protective gloves (such as butyl rubber) , passing the tests according to EN 374(EU), US F739 or AS/NZS 2161.1 standard.
- Eye protection : Tightly fitting safety goggles (approved by EN 166(EU) or NIOSH (US).
- Skin and body protect: Wear fire/ flame resistant/retardant clothing and antistatic boots.  
Select appropriate protective clothing based on chemical resistance data and an assessment of the local exposure potential.  
  
Skin contact must be avoided by using impervious protective clothing (gloves, aprons, boots, etc).
- Hygienic measures : Ensure that eye flushing systems and safety showers are located close to the working place.  
When using do not eat, drink or smoke.  
Wash contaminated clothing before reuse.  
Do not inhale gases / fumes / aerosols.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance : Liquid
- Odor : Slightly
- Odor threshold : No information available
- pH : Not applicable
- Melting point/ freezing point : No information available
- Initial boiling point and boiling range (°C) : >35
- Flash point (°C) : ≥93°C (Closed cup)
- Evaporation rate : No information available
- Flammability : Not flammable
- Upper explosive limits[% (v/v)] : No information available
- Lower explosive limits[% (v/v)] : No information available
- Vapor pressure : No information available
- Relative vapour density (Air=1) : No information available

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Relative density (Water=1) : 0.88~1.08  
 Solubility (mg/L) : Insoluble  
 n-octanol/water partition coefficient : No information available  
 Dynamic viscosity : No information available  
 Particle characteristics : No information available  
 Explosive properties : Non explosive  
 Oxidizing properties : Non oxidizing

### 10. STABILITY AND REACTIVITY

Reactivity : Not classified as a reactivity hazard.  
 Chemical stability : Stable under normal conditions.  
 Possibility of hazardous reactions : In contact with oxidants causes severe reactions, and may cause a fire or explosion.  
 Possibility of hazardous reactions : Incompatible materials, heat, flame and spark.  
 Incompatible materials : Oxidants, alkali metals, alkaline earth metals and aluminum.  
 Hazardous decomposition products : No date available.

### 11. TOXICOLOGICAL INFORMATION

#### 11.1 Acute toxicity

Component	CAS-No.	LD50(oral)	LD50(dermal)	LC50(inhalation,4h)
Tetramethyl-2-thiourea	2782-91-4	920mg/kg(Rat)	No information available	No information available
Methacrylic acid	79-41-4	1060mg/kg(Rat)	500mg/kg(Rabbit)	No information available
Methyl methacrylate	80-62-6	7872mg/kg(Rat)	> 5000mg/kg(Rabbit)	78mg/L(Rat)

#### 11.2 Carcinogenicity

Component	CAS-No.	IARC	NTP
Methacrylic acid	79-41-4	Not Listed	Not Listed
ABS Resins	9003-56-9	Not Listed	Not Listed
Methyl methacrylate	80-62-6	Category 3	Not Listed
Tetramethyl-2-thiourea	2782-91-4	Not Listed	Not Listed

#### 11.3 Others

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Skin corrosion/irritation : No further information available  
 Serious eye damage/irritation : No further information available  
 Skin sensitization : No further information available  
 Respiratory sensitization : No further information available  
 Reproductive toxicity : No further information available  
 STOT-single exposure : No further information available  
 STOT-repeated exposure : No further information available  
 Aspiration hazard : No further information available  
 Germ cell mutagenicity : No further information available  
 Reproductive toxicity(additional) : No further information available

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### 12. ECOLOGICAL INFORMATION

#### 12.1 Acute aquatic toxicity

Component	CAS-No.	Fish	Crustaceans	Algae
Methyl methacrylate	80-62-6	LC50 : 311mg/L (96h)(Fish)	EC50 : 84mg/L (48h)(Crustaceans)	ErC50 : >86mg/L (72h)(Algae)

#### 12.2 Chronic aquatic toxicity

Component	CAS-No.	Fish	Crustaceans	Algae
Methyl methacrylate	80-62-6	No information available	NOEC : 3.5mg/L(Crustaceans)	NOEC : 86mg/L(Algae)

#### 12.3 Persistence and degradability

Component	CAS No.	Persistence (water/soil)	Persistence (air)
Methacrylic acid	79-41-4	Low	Low
ABS Resins	9003-56-9	Low(Half-life = 46 days)	Low(Half-life = 7.88 days)
Tetramethyl-2-thiourea	2782-91-4	High	High

#### 12.4 Bioaccumulative potential

Component	CAS-No.	Bioaccumulative potential	Comments
Methacrylic acid	79-41-4	Low	Log Kow=0.93
ABS Resins	9003-56-9	Low	BCF=48
Tetramethyl-2-thiourea	2782-91-4	Low	Log Kow=0.49

#### 12.5 Mobility in soil

Component	CAS-No.	Mobility in soil	Soil Organic Carbon-Water Partitioning Coefficient (K <sub>oc</sub> )
Methacrylic acid	79-41-4	High	1.895
ABS Resins	9003-56-9	Low	8.3
Tetramethyl-2-thiourea	2782-91-4	Low	8.24

#### 12.6 Results of PBT and vPvB assessment

Component	CAS-No.	Results of PBT and vPvB assessment ( according to (EC) No 1907/2006)
Methacrylic acid	79-41-4	not PBT/vPvB
ABS Resins	9003-56-9	not PBT/vPvB
Methyl methacrylate	80-62-6	not PBT/vPvB
Tetramethyl-2-thiourea	2782-91-4	not PBT/vPvB

### 13. DISPOSAL CONSIDERATIONS

#### Disposal methods

Waste from residues : Dispose of in accordance with local regulations.

Contaminated packag: Empty containers should be taken to an approved waste handling site for recycling or disposal.Do not pierce or burn, even after use.  
If not otherwise specified: Dispose of as unused product.

Disposal recommend: Refer to section waste chemicals and contaminated packaging.

### 14. TRANSPORT INFORMATION

#### 14.1 UNRTDG:

UN No. : N/A

Class : N/A

Packaging group : N/A

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Marine pollutant : N/A

Shipping Name : N/A

**14.2 Marine Transport IMDG-Code:**

UN No. : N/A

Class : N/A

Packaging group : N/A

Marine pollutant : N/A

Shipping Name : N/A

**14.3 Road Transport ADR:**

UN No. : N/A

Class : N/A

Packaging group : N/A

Marine pollutant : N/A

Shipping Name : N/A

**14.4 Air Transport IATA-DGR:**

UN No. : N/A

Class : N/A

Packaging group : N/A

Marine pollutant : N/A

Shipping Name : N/A

**15. REGULATORY INFORMATION**

Safety, health and environmental regulations/legislation specific for the substance or mixture.

**16. OTHER INFORMATION****16.1 National Fire Protection Association (U.S.A.)**

Health : 1

Flammability : 1

Instability/Reactivity : 1

Special : N/A

**16.2 Reference**[1] IPCS: The International Chemical Safety Cards (ICSC), website: <http://www.ilo.org/dyn/icsc/showcard.home>[2] IARC, website: <http://www.iarc.fr/>

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- [3] OECD: The Global Portal to Information on Chemical Substances, website: [http://www.echemportal.org/echemportal/index?pageID=0&request\\_locale=en](http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en).
- [4] CAMEO Chemicals, website: <http://cameochemicals.noaa.gov/search/simple>
- [5] NLM: ChemIDplus, website: <http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp>
- [6] EPA: Integrated Risk Information System, website: <http://cfpub.epa.gov/iris/>
- [7] U.S. Department of Transportation: ERG, website: <http://www.phmsa.dot.gov/hazmat/library/erg>
- [8] Germany GESTIS-database on hazard substance, website: <http://gestis-en.itrust.de/>
- [9] European Chemicals Agency, <http://echa.europa.eu/>

### 16.3 Full text of other abbreviations

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways;

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road;

IBC: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk;

IMO: International Maritime Organization; ISHL: Industrial Safety and Health Law (Japan);

OSHA: United States Department of Labor: Occupational Safety and Health Administration;

RID: Regulations concerning the International Carriage of Dangerous Goods by Rail;

UNRTDG: United Nations Recommendations on the Transport of Dangerous Goods;

MARPOL: International Convention for the Prevention of Pollution from Ships;

AICS: Australian Inventory of Chemical Substances; ACGIH: American Conference of Governmental Industrial Hygienists;

AIHA: American Industrial Hygiene Association; O: International Organisation for Standardization;

ASTM: American Society for the Testing of Materials; KECI: Korea Existing Chemicals Inventory;

ATE: Acute toxicity estimate; LC50: Lethal Concentration to 50 %;

CMR: Carcinogen, Mutagen or Reproductive Toxicant; LD50: Lethal Dose to 50%(Median Lethal Dose);

CMR: Carcinogen, Mutagen or Reproductive Toxicant; EC50: Effective Concentration 50%

DSL: Domestic Substances List (Canada); IC50: Half maximal inhibitory concentration;

ECx: Concentration associated with x% response; PICCS: Philippines Inventory of Chemicals and Chemical Substances;

ELx: Loading rate associated with x% response; OECD: Organization for Economic Co-operation and Development;

EmS: Emergency Schedule; n.o.s.: Not Otherwise Specified;

ENCS: Existing and New Chemical Substances (Japan); NO(A)EC: No Observed (Adverse) Effect Concentration;

ErCx: Concentration associated with x% growth rate response; NO(A)EL: No Observed (Adverse) Effect Level;

GLP: Good Laboratory Practice; NZIoC: New Zealand Inventory of Chemicals;

IARC: International Agency for Research on Cancer; OPPTS: Office of Chemical Safety and Pollution Prevention;

IATA: International Air Transport Association; PBT: Persistent, Bioaccumulative and Toxic substance;

ICAO: International Civil Aviation Organization; (Q)SAR: (Quantitative) Structure Activity Relationship;

IECSC: Inventory of Existing Chemical Substances in China; SADT: Self-Accelerating Decomposition Temperature;

IMDG: International Maritime Dangerous Goods; STEL: Short Term Exposure Limit;

NFPA: National Fire Protection Association; TCSI: Taiwan Chemical Substance Inventory;

UN: United Nations; TSCA: Toxic Substances Control Act (United States);

TWA: Time-Weighted-Average; vPvB: Very Persistent and Very Bioaccumulative.

PC-TWA: Permissible concentration-Time Weighted Average; PC-STEL: Permissible concentration-Short Term Exposure Limit

### 16.4 Disclaimer

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The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable. This Safety Data Sheet (SDS) was prepared according to UN GHS (the 7th revised edition). The data included was derived from international authoritative database and provided by the enterprise. Other information was based on the present state of our knowledge. We try to ensure the correctness of all information. However, due to the diversity of information sources and the limitations of our knowledge, this document is only for user's reference. Users should make their independent judgment of suitability of this information for their particular purposes. We do not assume responsibility for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.

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