

Safety Data Sheet

acc. to OSHA HCS

Printing date 06/06/2017

Reviewed on 06/06/2017

1 Identification

· Product identifier

· Trade name: **K-Bond Acrylic Penetrating**

· Article number: Ac Pe
 · CAS Number: 80-62-6
 · EC number: 201-297-1
 · Index number: 607-035-00-6

· Application of the substance / the mixture Acrylic resin

· Details of the supplier of the safety data sheet

· Manufacturer/Supplier: InnoChem LLC
 4030 Pleasantdale Road
 Suite F
 Doraville, GA 30340

Phone: 770-409-8789
 Fax: 770-409-9096
 e-mail info@innocemllc.com

· Information department: Laboratory
 · Emergency telephone number: Refer to Manufacturer / Supplier

2 Hazard(s) identification

· Classification of the substance or mixture



GHS02 Flame

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



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 substance is classified and labeled according to the Globally Harmonized System (GHS).

· Hazard pictograms



GHS02 GHS07

· Signal word

Danger

· Hazard-determining components of labeling:

· Hazard statements

methyl methacrylate
 H225 Highly flammable liquid and vapor.
 H315 Causes skin irritation.
 H317 May cause an allergic skin reaction.
 H335 May cause respiratory irritation.

· Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
 P261 Avoid breathing vapours.
 P271 Use only outdoors or in a well-ventilated area.
 P280 Wear protective gloves / eye protection.
 P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 P312 Call a POISON CENTER/doctor if you feel unwell.
 P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
 P403+P233 Store in a well-ventilated place. Keep container tightly closed.

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

- **Classification system:**
- NFPA ratings (scale 0 - 4)



Health = 1
Fire = 3
Reactivity = 0

- HMIS-ratings (scale 0 - 4)



Health = 1
Fire = 3
Reactivity = 0

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

* 3 Composition/information on ingredients

- **Chemical characterization: Substances**
- CAS No. Description: 80-62-6 methyl methacrylate
- Identification number(s)
- EC number: 201-297-1
- Index number: 607-035-00-6
- Dangerous components: Void

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.
- 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.

5 Fire-fighting measures

- **Extinguishing media**
- Suitable extinguishing agents: CO2, sand, extinguishing powder. Do not use water.
- For safety reasons unsuitable extinguishing agents: Water
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.

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- **Environmental precautions:** Do not allow product to reach sewage system or any water course.
Prevent seepage into sewage system, workpits and cellars.
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.
- **Protective Action Criteria for Chemicals**

· PAC-1:

80-62-6	methyl methacrylate	17 ppm
90-72-2	2,4,6-tris(dimethylaminomethyl)phenol	6.5 mg/m3

· PAC-2:

80-62-6	methyl methacrylate	120 ppm
90-72-2	2,4,6-tris(dimethylaminomethyl)phenol	72 mg/m3

· PAC-3:

80-62-6	methyl methacrylate	570 ppm
90-72-2	2,4,6-tris(dimethylaminomethyl)phenol	430 mg/m3

7 Handling and storage

- **Handling:**
- **Precautions for safe handling** 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.
- **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:** The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.
At this time, the remaining constituent has no known exposure limits.

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80-62-6 methyl methacrylate

PEL	Long-term value: 410 mg/m ³ , 100 ppm
REL	Long-term value: 410 mg/m ³ , 100 ppm
TLV	Short-term value: 410 mg/m ³ , 100 ppm Long-term value: 205 mg/m ³ , 50 ppm
DSEN	

- 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:
 - Preventive skin protection by use of skin-protecting agents is recommended.
 - After use of gloves apply skin-cleaning agents and skin cosmetics.
 - Skin protection agent recommendation for preventive skin shelter without use of protective gloves
 - ARRETIL (<http://www.stoko.com>)
 - Skin protection agent recommendation for preventive skin shelter in application and combination of protective gloves:
 - STOKO EMULSION (<http://www.stoko.com>)
 - Skin protection recommendation for skin cleaning after product handling:
 - SLIG SPEZIAL (<http://www.stoko.com>)
 - Skin protection agent recommendation for skin aftercare:
 - STOKO VITAN (<http://www.stoko.com>)
-
- 

Protective gloves

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

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

The protection gloves to be used have to comply with the specifications of the directive 89/686/EC and the directive derived decree EN374, respectively, e.g. the above listed protection glove type. The mentioned permeation times' data were generated and verified with material samples of the recommended protection glove type in the scope of laboratory analyses of the company KCL GmbH in compliance with EN374.

This recommendation refers exclusively to the material safety data sheet referenced product delivered by Akemi and the indicated field of application. In case of product dilution or in case of mixture with different substances or chemicals, and in condition of EN374 deviation the producer of CE-approved protection gloves must be contacted for detailed information (e.g., KCL GmbH, Germany, 36124 Eichenzell, internet: <http://www.kcl.de>).
- Material of gloves Butyl rubber, BR
 - Penetration time of glove material 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. The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

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- Value for the permeation: Level \leq 2, 60 min
- For the permanent contact gloves made of the following materials are suitable: Butyl rubber, BR
Butoject (KCL, Art_No. 897, 898)
 - As protection from splashes gloves made of the following materials are suitable: Butyl rubber, BR
Butoject (KCL, Art_No. 897, 898)
Fluorocarbon rubber (Viton)
Vitoject (KCL, Art_No. 890)
 - Not suitable are gloves made of the following materials: Leather gloves
Strong gloves
Natural rubber, NR
 - Eye protection:



Tightly sealed goggles

9 Physical and chemical properties**· Information on basic physical and chemical properties****· General Information****· Appearance:**

Form:	Fluid
Color:	Colorless
· Odor:	Acrid

· pH-value: Not determined.**· Change in condition**

Melting point/Melting range:	-48 °C (-54 °F)
Boiling point/Boiling range:	101 °C (214 °F)

· Flash point: 10 °C (50 °F)· Ignition temperature: 430 °C (806 °F)· Danger of explosion: Product is not explosive. However, formation of explosive air/vapor mixtures are possible.**· Explosion limits:**

Lower:	2.1 Vol %
Upper:	12.5 Vol %

· Vapor pressure at 20 °C (68 °F): 47 hPa (35 mm Hg)· Density at 20 °C (68 °F): 0.97 g/cm³ (8.095 lbs/gal)· Specific gravity at 20 °C (68 °F): 0.94 g/cm³ (7.844 lbs/gal)**· Solubility in / Miscibility with**Water at 20 °C (68 °F): 1.6 g/l**· Viscosity:**

Dynamic:	Not determined.
Kinematic:	Not determined.
Organic solvents:	98.7 %

Solids content: 0.2 %

· Other information

No further relevant information available.

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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:

· <u>LD/LC50 values that are relevant for classification:</u>		
ATE (Acute Toxicity Estimate)		
Oral	LD50	6036 mg/kg (rat)
Inhalative	LC50/4 h	30.2 mg/l (rat)

80-62-6 methyl methacrylate

Oral	LD50	7872 mg/kg (rat) (OECD 401)
Dermal	LD50	> 5000 mg/kg (rabbit)
Inhalative	LC50/4 h	29.8 mg/l (rat)

- Primary irritant effect:
- on the skin: Irritant to skin and mucous membranes.
- on the eye: No irritating effect.
- Sensitization: Sensitization possible through skin contact.
- Additional toxicological information:

- Carcinogenic categories

· <u>IARC (International Agency for Research on Cancer)</u>	
	3

· <u>NTP (National Toxicology Program)</u>	
Substance is not listed.	

· <u>OSHA-Ca (Occupational Safety & Health Administration)</u>	
Substance is not listed.	

12 Ecological information

- **Toxicity**

· <u>Aquatic toxicity:</u>	
80-62-6 methyl methacrylate	
EC50/48h	69 mg/l (daphnia magna) (OECD 202)
EC0	100 mg/l (pseudomonas putida)
NOEC	9.4 mg/kg (Danio rerio.) (OECD 210)
NOEC/21d	37 mg/l (daphnia magna) (OECD 202)
EC50/72h	>110 mg/l (Selenastrum capricornutum)
LC50/96h	> 79 mg/l (Oncorhynchus mykiss) (OECD 203)

- **Persistence and degradability** No further relevant information available.

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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 1 (Assessment by list): slightly hazardous for water

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, ADR, IMDG, IATA UN1866

UN proper shipping name

- DOT Resin solution
- ADR 1866 Resin solution, special provision 640D
- IMDG, IATA RESIN SOLUTION

Transport hazard class(es)DOT

- Class 3 Flammable liquids
- Label 3

ADR

- Class 3 (F1) Flammable liquids
- Label 3

IMDG, IATA

- Class 3 Flammable liquids
- Label 3

Packing group

- DOT, ADR, IMDG, IATA II

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· Environmental hazards:	
· Marine pollutant:	No
· Special precautions for user	
· Danger code (Kemler):	Warning: Flammable liquids
· EMS Number:	33
· Stowage Category	F-E, S-E
	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

· ADR	
· 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 1866 RESIN SOLUTION, 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):

Substance is not listed.

· Section 313 (Specific toxic chemical listings):

80-62-6 | methyl methacrylate

· TSCA (Toxic Substances Control Act):

Substance is listed.

· Proposition 65

· Chemicals known to cause cancer:

Substance is not listed.

· Chemicals known to cause reproductive toxicity for females:

Substance is not listed.

· Chemicals known to cause reproductive toxicity for males:

38668-48-3 | 1,1'-(p-tolylimino)dipropan-2-ol

· Chemicals known to cause developmental toxicity:

Substance is not listed.

· Cancerogenity categories

· EPA (Environmental Protection Agency)

E, NL

· TLV (Threshold Limit Value established by ACGIH)

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· MAK (German Maximum Workplace Concentration)

Substance is not listed.

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

Substance is not listed.

· GHS label elements

The substance is classified and labeled according to the Globally Harmonized System (GHS).

· Hazard pictograms



GHS02 GHS07

· Signal word

Danger

· Hazard-determining components of labeling:

· Hazard statements

methyl methacrylate
 H225 Highly flammable liquid and vapor.
 H315 Causes skin irritation.
 H317 May cause an allergic skin reaction.
 H335 May cause respiratory irritation.

· Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
 P261 Avoid breathing vapours.
 P271 Use only outdoors or in a well-ventilated area.
 P280 Wear protective gloves / eye protection.
 P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 P312 Call a POISON CENTER/doctor if you feel unwell.
 P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
 P403+P233 Store in a well-ventilated place. Keep container tightly closed.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· National regulations:

· Water hazard class:

Water hazard class 1 (Assessment by list): slightly hazardous for water.

· VOC USA

958.4 g/l / 8.00 lb/gl

· 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:

Laboratory

· Contact:

Dieter Zimmermann

· Date of preparation / last revision

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· Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
 IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
 ICAO: International Civil Aviation Organisation
 ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)
 ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
 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)
 LC50: Lethal concentration, 50 percent

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LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
Flam. Liq. 2: Flammable liquids – Category 2
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Skin Sens. 1: Skin sensitisation – Category 1
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

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