

Safety Data Sheet acc. to OSHA HCS

Printing Date 06/10/2015

Revision Number 1

Revision Date 06/10/2015

1 Identification

- **Product identifier**
- **Trade name:** *Kleer Cellular PVC Laminating Adhesive, Part A*
- **Relevant identified uses of the substance or mixture.** *Adhesive*
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Extreme Adhesives, LLC
A Division of Royal Adhesives & Sealants, LLC
63 Epping Road
Raymond, NH 03077
800-888-4583
- **Information department:** *Environment protection department.*
- **Emergency telephone number:**
ChemTrec: Day or Night within USA and Canada: 1-800-424-9300.
Outside USA and Canada: +1 703-527-3887 (collect calls accepted)

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 Flame

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

GHS08 Health hazard

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.

GHS07

*Skin Irrit. 2 H315 Causes skin irritation.**Eye Irrit. 2A H319 Causes serious eye irritation.**Skin Sens. 1 H317 May cause an allergic skin reaction.**STOT SE 3 H335 May cause respiratory irritation.**H402 Harmful to aquatic life.*

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



GHS02



GHS07



GHS08

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· **Signal word** *Danger*

· **Hazard statements**

Highly flammable liquid and vapor.

Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

May cause respiratory irritation.

May cause damage to organs through prolonged or repeated exposure.

Harmful to aquatic life.

· **Precautionary statements**

If medical advice is needed, have product container or label at hand.

Keep out of reach of children.

Read label before use.

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Use explosion-proof electrical/ventilating/lighting/equipment.

Do not breathe dusts or mists.

Wear protective gloves / eye protection / face protection.

Wear protective gloves.

Wear eye protection / face protection.

Ground/bond container and receiving equipment.

Use only non-sparking tools.

Avoid release to the environment.

Take precautionary measures against static discharge.

Wash thoroughly after handling.

Use only outdoors or in a well-ventilated area.

Contaminated work clothing must not be allowed out of the workplace.

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

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

Specific treatment (see on this label).

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

Call a poison center/doctor if you feel unwell.

Wash contaminated clothing before reuse.

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

If eye irritation persists: Get medical advice/attention.

Get medical advice/attention if you feel unwell.

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

Take off contaminated clothing and wash it before reuse.

Store locked up.

Store in a well-ventilated place. Keep container tightly closed.

Store in a well-ventilated place. Keep cool.

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

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**

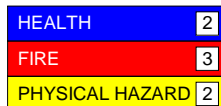


Health = 2

Fire = 3

Reactivity = 2

· **HMIS-ratings (scale 0 - 4)**



Health = 2

Fire = 3

Physical Hazard = 2

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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**

- **Hazardous components:**

80-62-6	methyl methacrylate	2.5-50%
79-41-4	methacrylic acid	2.5-10%
110-16-7	maleic acid	2.5-10%
128-37-0	2,6-di-tert-butyl-p-cresol	2.5-10%
98-59-9	tosyl chloride	≤2.5%
28961-43-5	ethoxylated trimethylolpropane triacrylate	≤2.5%
80-15-9	α,α -dimethylbenzyl hydroperoxide	≤2.5%

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 20 minutes under running water. If eye becomes irritated, obtain medical treatment.
- **After swallowing:**
Rinse out mouth with water. Drink 1 - 2 glasses of water but **DO NOT** induce vomiting. Do not give liquids to a drowsy, convulsing or unconscious person. If vomiting occurs spontaneously, keep head below hips to prevent aspiration.
Seek medical treatment.
- **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:**
Foam
CO₂, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:** Water
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** Protective clothing and respiratory protective device.

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6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

- **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).

Dispose of contaminated material as waste in accordance with federal state and local regulations.

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**

Avoid prolonged or repeated contact with skin.

Avoid contact with eyes.

Wash thoroughly after handling.

Handle/process in well ventilated areas.

Open containers in a well ventilated area and avoid breathing headspace vapors.

Prevent formation of aerosols.

- **Information about protection against explosions and fires:**

Keep container closed when not in use.

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 at temperatures not exceeding 37C.

Store in a cool location away from direct heat.

- **Information about storage in one common storage facility:** Store away from oxidizing agents.

- **Further information about storage conditions:**

Protect from contamination.

Protect from humidity and water.

Store in dry conditions.

Keep receptacle tightly sealed.

- **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

PEL	Long-term value: 410 mg/m ³ , 100 ppm
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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 (SEN) NIC-DSEN
79-41-4 methacrylic acid	
REL	Long-term value: 70 mg/m ³ , 20 ppm Skin
TLV	Long-term value: 70 mg/m ³ , 20 ppm
128-37-0 2,6-di-tert-butyl-p-cresol	
REL	Long-term value: 10 mg/m ³
TLV	Long-term value: 2* mg/m ³ *as inhalable fraction and vapor
98-59-9 tosyl chloride	
WEEL	Ceiling limit value: 5 mg/m ³
80-15-9 α,α -dimethylbenzyl hydroperoxide	
WEEL	Long-term value: 6 mg/m ³ , 1 ppm Skin

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

· **Exposure controls**

· **Personal protective equipment (see listings below)**

· **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:**

Use approved respiratory protection equipment when airborne exposure is excessive. Consult the respirator manufacturer to determine the appropriate type of equipment for a given application. Observe respirator use limitations specified by the manufacturer.

· **Protection of hands:**



Protective gloves

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

· **Material of gloves**

Nitrile rubber, NBR

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.

· **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:**

Safety glasses with side shields.



Tightly sealed goggles

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· **Body protection:** Protective work clothing

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form:	Liquid
Color:	Clear, light amber
Odor:	Characteristic
Odour threshold:	Not determined.

· **pH-value:** Not determined.

· **Change in condition**

Melting point:	Undetermined.
Boiling point:	101 °C (214 °F)

· **Flash point:** 10 °C (50 °F)

· **Flammability (solid, gaseous):** Not applicable.

· **Ignition temperature:** 430 °C (806 °F)

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

· **Flammable limits:**

Lower:	2.1 Vol %
Upper:	12.5 Vol %

· **Vapor pressure at 20 °C (68 °F):** 47 hPa (35 mm Hg)

· **Specific gravity:**

Relative density	Not determined.
Vapour density	Not determined.
Evaporation rate	3

· **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: 0.0 %

· **Other information** No further relevant information available.

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10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions**
 Danger of polymerization.
 polymerization may occur upon loss of inhibitor.
- **Conditions to avoid** Heat, flames, sparks, hot surfaces, ignition sources.
- **Incompatible materials:**
 Strong oxidizers, acids, and bases.
 Reacts with amines.
 Reacts with moisture
 Reacts with strong alkali.
 reducing agents.
 reacts with peroxides
 Reacts with ultraviolet radiation
- **Hazardous decomposition products:**
 Nitrogen oxides
 Carbon monoxide and carbon dioxide

11 Toxicological information

- **Information on toxicological effects**
 - **Acute toxicity:**
- | | | |
|---|------|--------------------|
| · LD/LC50 values that are relevant for classification: | | |
| 79-41-4 methacrylic acid | | |
| Oral | LD50 | 1332 mg/kg (mouse) |
| Dermal | LD50 | 500 mg/kg (rabbit) |
- **Primary irritant effect:**
 - **on the skin:** Skin irritant.
 - **on the eye:** Irritating effect.
 - **Sensitization:** Skin Contact - 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 |
| 128-37-0 | 2,6-di-tert-butyl-p-cresol | 3 |
- **NTP (National Toxicology Program)**
 None of the ingredients is listed.
 - **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.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:** At present there are no ecotoxicological assessments.
- **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 be specially treated adhering to official regulations.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- | | |
|---|---------------------|
| · UN-Number | |
| · DOT, ADR, IMDG, IATA | UN1133 |
| · UN proper shipping name | |
| · DOT | Adhesives |
| · ADR | 1133 Adhesives |
| · IMDG, IATA | ADHESIVES |
| · Transport hazard class(es) | |
| · DOT | |
|  | |
| · Class | 3 Flammable liquids |
| · Label | 3 |
| · ADR, IMDG, IATA | |
|  | |
| · Class | 3 Flammable liquids |
| · Label | 3 |

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· Packing group	
· DOT, ADR, IMDG, IATA	II
· Environmental hazards:	Not applicable.
· Special precautions for user	Warning: Flammable liquids
· Danger code (Kemler):	33
· EMS Number:	F-E,S-D
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· UN "Model Regulation":	UN1133, Adhesives, 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 ingredients is listed.

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

80-62-6 methyl methacrylate

80-15-9 α,α -dimethylbenzyl hydroperoxide

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

All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements.

· **Proposition 65**

· **Chemicals known to cause cancer:**

None of the ingredients is listed.

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

None of the ingredients is listed.

· **(DSL) Canada Domestic Substance List**

All components of this product are on the DSL (Canada Domestic Substance list) or are exempt from DSL requirements.

· **Carcinogenicity categories**

· **EPA (Environmental Protection Agency)**

80-62-6 methyl methacrylate

E, NL

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

80-62-6 methyl methacrylate

A4

128-37-0 2,6-di-tert-butyl-p-cresol

A4

· **MAK (German Maximum Workplace Concentration)**

128-37-0 2,6-di-tert-butyl-p-cresol

4

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

None of the ingredients is listed.

· **National regulations:**

- **Water hazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.**

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

16 Other information

Although the information and recommendations set forth in this SDS are presented in good faith and are believed to be correct as of the date of this SDS, Royal Adhesives & Sealants makes no representations as to the completeness or accuracy thereof. Information is supplied on the condition that the persons receiving and using it will make their own determination as to the suitability for their purpose prior to use. In no event will Royal Adhesives & Sealants or any affiliate thereof be responsible for damages of any nature whatsoever resulting from the use or reliance on the information set forth in the SDS.

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

· **Creation Date:** 06/10/2015

· **Date of preparation / last revision** 06/10/2015 / -

· **Abbreviations and acronyms:**

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

LD50: Lethal dose, 50 percent

Flam. Liq. 2: Flammable liquids, Hazard Category 2

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A

Skin Sens. 1: Sensitisation - Skin, Hazard Category 1

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2

: Hazardous to the aquatic environment - AcuteHazard, Category 3