

Safety Data Sheet
acc. to OSHA HCS

Printing Date 12/20/2016

Revision Number 1

Revision Date 12/20/2016

1 Identification

- **Product identifier**
- **Trade name:** *Torque GM10, GM15, GM25, GM30, GM35, GM40, GM45, GM50*
- **Relevant identified uses of the substance or mixture.** *Adhesive*
- **Application of the substance / the mixture** *Adhesives*
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
*Adhesive Systems, Inc.
A Division of Royal Adhesives & Sealants, LLC
9411 Corsair Road
Frankfort, Illinois 60423
Phone Number: 800-552-0299*
- **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**



Skin Irrit. 2 H315 Causes skin irritation.

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



- **Signal word** *Warning*
- **Hazard statements**
Causes skin irritation.
- **Precautionary statements**
*Wear protective gloves.
Wash thoroughly after handling.
Specific treatment (see on this label).
If skin irritation occurs: Get medical advice/attention.
IF ON SKIN: Wash with plenty of water.
Take off contaminated clothing and wash it before reuse.*

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



- **HMIS-ratings (scale 0 - 4)**

HEALTH	2	Health = 2
FIRE	1	Fire = 1
PHYSICAL HAZARD	1	Physical Hazard = 1

- **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:**

5888-33-5	Isobornyl Acrylate	25-50%
27813-02-1	methacrylic acid, monoester with propane-1,2-diol	5-20%
79-10-7	acrylic acid	≤2.5%
80-15-9	α,α -dimethylbenzyl hydroperoxide	≤2.5%

4 First-aid measures

- **Description of first aid measures**
- **After inhalation:** Overexposure, remove to fresh air and seek medical attention.
- **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:** 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:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam. Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
Firefighters use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

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· **Protective equipment:** Protective clothing and respiratory protective device.

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.

· **Protective Action Criteria for Chemicals**

· **PAC-1:**

25852-47-5	poly(oxy-1,2-ethanediyl), α -(2-methyl-1-oxo-2-propen-1-yl)- ω -[(2-methyl-1-oxo-2-propen-1-yl)oxy]-	30 mg/m ³
112945-52-5	Amorphous Silica	18 mg/m ³
79-10-7	acrylic acid	1.5 ppm
80-15-9	α,α -dimethylbenzyl hydroperoxide	0.15 ppm

· **PAC-2:**

25852-47-5	poly(oxy-1,2-ethanediyl), α -(2-methyl-1-oxo-2-propen-1-yl)- ω -[(2-methyl-1-oxo-2-propen-1-yl)oxy]-	330 mg/m ³
112945-52-5	Amorphous Silica	100 mg/m ³
79-10-7	acrylic acid	46 ppm
80-15-9	α,α -dimethylbenzyl hydroperoxide	1.6 ppm

· **PAC-3:**

25852-47-5	poly(oxy-1,2-ethanediyl), α -(2-methyl-1-oxo-2-propen-1-yl)- ω -[(2-methyl-1-oxo-2-propen-1-yl)oxy]-	2,000 mg/m ³
112945-52-5	Amorphous Silica	630 mg/m ³
79-10-7	acrylic acid	180 ppm
80-15-9	α,α -dimethylbenzyl hydroperoxide	9.7 ppm

7 Handling and storage

· **Handling:**

· **Precautions for safe handling**

Open and handle receptacle with care.

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

· **Information about protection against explosions and fires:** Keep container closed when not in use.

· **Conditions for safe storage, including any incompatibilities**

· **Storage:**

· **Requirements to be met by storerooms and receptacles:** Store in a cool location away from direct heat.

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

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- **Further information about storage 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:**
The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.
At this time, the other constituents have no known exposure limits.

79-10-7 acrylic acid

REL Long-term value: 6 mg/m³, 2 ppm
Skin

TLV Long-term value: 5.9 mg/m³, 2 ppm
Skin

80-15-9 α,α -dimethylbenzyl hydroperoxide

WEEL Long-term value: 6 mg/m³, 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.
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**
Chloroprene rubber, CR
Rubber gloves
Butyl rubber, BR
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.

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Tightly sealed goggles

· **Body protection:** Protective work clothing

9 Physical and chemical properties

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

· **General Information**

· **Appearance:**

· Form:	Liquid
· Color:	Not determined.
· Odor:	Characteristic
· Odor threshold:	Not determined.

· **pH-value:** Not determined.

· **Change in condition**

· Melting point:	Undetermined.
· Boiling point:	Undetermined

· **Flash point:** >93 °C (>199 °F)

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

· **Ignition temperature:**

· **Decomposition temperature:** Not determined.

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

· **Danger of explosion:** Product does not present an explosion hazard.

· **Flammable limits:**

· Lower:	Not determined
· Upper:	Not determined

· **Vapor pressure:** Not determined.

· **Specific gravity:** Not Determined

· **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.

· **Viscosity:**

· Dynamic:	Not determined.
· Kinematic:	Not determined.

· **Solvent content:**

· **Organic solvents:** 0.0 %

· **Solids content:** Not available

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· **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**
Heat, flames, sparks.
Avoid temperatures above 100F (38C).
- **Incompatible materials:** Reacts with oxidizing agents.
- **Hazardous decomposition products:**
Carbon monoxide
Carbon dioxide

* 11 Toxicological information

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

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

80-15-9 α,α -dimethylbenzyl hydroperoxide

Oral	LD50	382 mg/kg (rat)
Dermal	LD50	500 mg/kg (rat)
Inhalative	LC50/4 h	220 mg/l (rat)

- **Primary irritant effect:**
- **on the skin:**
Skin irritant.
Irritant to skin and mucous membranes.
- **on the eye:**
May irritate the eye.
Vapors may be irritating to the eyes.
- **Sensitization:** No sensitizing effects known.
- **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)**

79-10-7 acrylic acid

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.
- **Ecotoxicological effects:**
- **Remark:** Toxic for fish
- **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, ADN, IMDG, IATA | <i>not regulated</i> |
| · UN proper shipping name | |
| · DOT, ADN, IMDG, IATA | <i>not regulated</i> |
| · Transport hazard class(es) | |
| · DOT, ADN, IMDG, IATA | |
| · Class | <i>not regulated</i> |
| · Packing group | |
| · DOT, IMDG, IATA | <i>not regulated</i> |
| · Environmental hazards: | <i>Not applicable.</i> |
| · Special precautions for user | <i>Not applicable.</i> |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | <i>Not applicable.</i> |
| · Transport/Additional information: | <i>Limited Quantities are allowed. Refer to 49 CFR for conditions that apply.</i> |
| · UN "Model Regulation": | <i>not regulated</i> |

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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):**

79-10-7 acrylic acid

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 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.

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

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

· **New Jersey Right-to-Know List:**

79-10-7 acrylic acid

80-15-9 α,α -dimethylbenzyl hydroperoxide

· **New Jersey Special Hazardous Substance List:**

79-10-7 acrylic acid

CO, F2, R2

80-15-9 α,α -dimethylbenzyl hydroperoxide

F2, R4

· **Pennsylvania Right-to-Know List:**

79-10-7 acrylic acid

80-15-9 α,α -dimethylbenzyl hydroperoxide

· **Pennsylvania Special Hazardous Substance List:**

79-10-7 acrylic acid

E

80-15-9 α,α -dimethylbenzyl hydroperoxide

E

· **Carcinogenity categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

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

79-10-7 acrylic acid

A4

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

None of the ingredients is listed.

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· **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.

· **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:** 12/20/2016

· **Date of preparation / last revision** 12/20/2016 / -

· **Abbreviations and acronyms:**

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

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

Skin Irrit. 2: Skin corrosion/irritation – Category 2

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