

SAFETY DATA SHEET

Torque Lock Part A

Section 1. Identification

GHS product identifier : Torque Lock Part A
Product code :
Other means of identification :
Product type : Resin Component

Relevant identified uses of the substance or mixture and uses advised against

Identified uses : A Chemical anchoring application

Supplier's details : Torque Lock Structural Systems
 28436 Roadside Dr.
 Agoura Hills, CA 91301
 818-436-2953

Emergency telephone number (with hours of operation) : CHEM TEL: 800-255-3924 24/7

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
 This product contains titanium dioxide which IARC has classified as a Group 2B carcinogen (possibly carcinogenic to humans). Evidence is based on sufficient animal testing as a result of long-term inhalation at high concentrations of respirable mounts of titanium dioxide. Because this product is in liquid or paste form, it does not pose a dust hazard; therefore, this classification is not relevant. (Note: sanding of this product will create a possible dust hazard).

This product contains crystalline silica (quartz sand). IARC has classified crystalline silica as a Group 1 carcinogen. Both IARC and NTP consider silica as a known human carcinogen. Evidence is based on the chronic and long-term exposure workers have had to respirable sized crystalline silica dust particles. Because this product is in liquid or paste form, it does not pose a dust hazard; therefore, this classification is not relevant. (Note: sanding of this product will create a possible silica dust hazard).

Classification of the substance or mixture : SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
 SKIN SENSITIZATION - Category 1

GHS label elements

Hazard pictograms :



Signal word : Warning



Section 2. Hazards identification

Hazard statements	: H319 - Causes serious eye irritation. H317 - May cause an allergic skin reaction.
Precautionary statements	
Prevention	: P280 - Wear protective gloves. Wear eye or face protection. P261 - Avoid breathing dust. P264 - Wash hands thoroughly after handling. P272 (OSHA) - Contaminated work clothing must not be allowed out of the workplace.
Response	: P302 + P352 + P363 - IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. P333 + P313 - If skin irritation or rash occurs: Get medical attention. P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical attention.
Storage	: Not applicable.
Disposal	: P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
Hazards not otherwise classified	: None known.

Section 3. Composition/information on ingredients

Substance/mixture	: Mixture
Other means of identification	:

Ingredient name	%	CAS number
Crystalline silica	≥50 - ≤75	14808-60-7
Vinyltoluene	≥5 - <10	25013-15-4
Methacrylic acid, monoester with propane-1,2-diol	≥3 - ≤5	27813-02-1
2,2'-Ethylenedioxydiethyl dimethacrylate	≥3 - ≤5	109-16-0
Silicon dioxide	≥1 - ≤3	7631-86-9
Titanium dioxide	≥0.3 - ≤1	13463-67-7
p-Benzoquinone	≤0.3	106-51-4

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact	: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. Get medical attention.
Inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Section 4. First aid measures

- Skin contact** : Wash with plenty of soap and water. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 20 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : May cause an allergic skin reaction.
- Ingestion** : No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
- Ingestion** : No known significant effects or critical hazards.

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

- Specific hazards arising from the chemical** : No specific fire or explosion hazard.

Section 5. Fire-fighting measures

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
metal oxide/oxides
- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

- Spill** : Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures.

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

United States

Occupational exposure limits

Ingredient name	Exposure limits
Crystalline silica	OSHA PEL Z3 (United States, 6/2016). TWA: 250 mppcf / (%SiO ₂ +5) 8 hours. Form: Respirable TWA: 10 mg/m ³ / (%SiO ₂ +2) 8 hours. Form: Respirable NIOSH REL (United States, 10/2016). TWA: 0.05 mg/m ³ 10 hours. Form: Respirable dust OSHA PEL (United States, 6/2016). TWA: 50 µg/m ³ 8 hours. Form: Respirable dust ACGIH TLV (United States, 3/2017). TWA: 0.025 mg/m ³ 8 hours. Form: Respirable fraction
Vinyltoluene	ACGIH TLV (United States, 3/2017). TWA: 50 ppm 8 hours. TWA: 242 mg/m ³ 8 hours. STEL: 100 ppm 15 minutes. STEL: 483 mg/m ³ 15 minutes. NIOSH REL (United States, 10/2016). TWA: 100 ppm 10 hours. TWA: 480 mg/m ³ 10 hours. OSHA PEL (United States, 6/2016). TWA: 100 ppm 8 hours. TWA: 480 mg/m ³ 8 hours.
Methacrylic acid, monoester with propane-1,2-diol	None.
2,2'-Ethylenedioxydiethyl dimethacrylate	None.
Silicon dioxide	NIOSH REL (United States, 10/2016). TWA: 6 mg/m ³ 10 hours. ACGIH TLV (United States, 3/2017). TWA: 10 mg/m ³ 8 hours. OSHA PEL (United States, 6/2016). TWA: 15 mg/m ³ 8 hours. Form: Total dust ACGIH TLV (United States, 3/2017). TWA: 0.1 ppm 8 hours. TWA: 0.44 mg/m ³ 8 hours. NIOSH REL (United States, 10/2016). TWA: 0.4 mg/m ³ 10 hours. TWA: 0.1 ppm 10 hours. OSHA PEL (United States, 6/2016). TWA: 0.1 ppm 8 hours. TWA: 0.4 mg/m ³ 8 hours.
Titanium dioxide	
p-Benzoquinone	

Canada

Occupational exposure limits

Section 8. Exposure controls/personal protection

Ingredient name	Exposure limits
Crystalline silica	CA British Columbia Provincial (Canada, 7/2016). TWA: 0.025 mg/m ³ 8 hours. Form: Respirable CA Quebec Provincial (Canada, 1/2014). TWAEV: 0.1 mg/m ³ 8 hours. Form: Respirable dust CA Ontario Provincial (Canada, 7/2015). TWA: 0.1 mg/m ³ 8 hours. Form: Respirable fraction CA Saskatchewan Provincial (Canada, 7/2013). TWA: 0.05 mg/m ³ 8 hours. Form: Respirable fraction CA Alberta Provincial (Canada, 4/2009). 8 hrs OEL: 0.025 mg/m ³ 8 hours. Form: Respirable particulate.
Vinyltoluene	CA Alberta Provincial (Canada, 4/2009). 15 min OEL: 100 ppm 15 minutes. 8 hrs OEL: 50 ppm 8 hours. 15 min OEL: 483 mg/m ³ 15 minutes. 8 hrs OEL: 242 mg/m ³ 8 hours. CA British Columbia Provincial (Canada, 7/2016). TWA: 25 ppm 8 hours. STEL: 75 ppm 15 minutes. CA Quebec Provincial (Canada, 1/2014). TWAEV: 50 ppm 8 hours. TWAEV: 242 mg/m ³ 8 hours. STEV: 100 ppm 15 minutes. STEV: 483 mg/m ³ 15 minutes. CA Ontario Provincial (Canada, 7/2015). STEL: 100 ppm 15 minutes. TWA: 50 ppm 8 hours. CA Saskatchewan Provincial (Canada, 7/2013). STEL: 100 ppm 15 minutes. TWA: 50 ppm 8 hours.
Titanium dioxide	CA British Columbia Provincial (Canada, 7/2016). TWA: 3 mg/m ³ 8 hours. Form: Respirable dust TWA: 10 mg/m ³ 8 hours. Form: Total dust CA Alberta Provincial (Canada, 4/2009). 8 hrs OEL: 10 mg/m ³ 8 hours. CA Ontario Provincial (Canada, 7/2015). TWA: 10 mg/m ³ 8 hours. CA Quebec Provincial (Canada, 1/2014). TWAEV: 10 mg/m ³ 8 hours. Form: Total dust CA Saskatchewan Provincial (Canada, 7/2013). STEL: 20 mg/m ³ 15 minutes. TWA: 10 mg/m ³ 8 hours.
p-Benzoquinone	CA Alberta Provincial (Canada, 4/2009). 8 hrs OEL: 0.4 mg/m ³ 8 hours. 8 hrs OEL: 0.1 ppm 8 hours. CA British Columbia Provincial (Canada, 7/2016). TWA: 0.1 ppm 8 hours. CA Ontario Provincial (Canada, 7/2015). TWA: 0.1 ppm 8 hours. CA Quebec Provincial (Canada, 1/2014). TWAEV: 0.1 ppm 8 hours. TWAEV: 0.44 mg/m ³ 8 hours. CA Saskatchewan Provincial (Canada, 7/2013). STEL: 0.3 ppm 15 minutes. TWA: 0.1 ppm 8 hours.

Appropriate engineering controls

: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Environmental exposure controls

: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

Individual protection measures

Section 8. Exposure controls/personal protection

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

- Physical state** : Solid. [Paste.]
- Color** : Beige.
- Odor** : Characteristic.
- Odor threshold** : Not available.
- pH** : Not available.
- Melting point** : Not available.
- Boiling point** : 198°C (388.4°F)
- Flash point** : Not available.
- Evaporation rate** : Slow.
- Flammability (solid, gas)** : Not available.
- Lower and upper explosive (flammable) limits** : Not available.
- Vapor pressure** : Not available.
- Vapor density** : Not available.
- Relative density** : Not available.
- Solubility** : Very slightly soluble in the following materials: cold water and hot water.
- Partition coefficient: n-octanol/water** : Not available.
- Auto-ignition temperature** : Not available.

Section 9. Physical and chemical properties

- Decomposition temperature** : Not available.
- Viscosity** : Viscous.
- Flow time (ISO 2431)** : Not available.

Section 10. Stability and reactivity

- Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- Chemical stability** : Stable under normal conditions. May polymerise on exposure to light.
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- Conditions to avoid** : Direct sunlight. Heat. Flames.
- Incompatible materials** : Reactive or incompatible with the following materials: oxidizing materials and acids.
- Hazardous decomposition products** : In combustion emits toxic fumes of carbon dioxide/carbon monoxide.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Vinyltoluene	LD50 Oral	Rat	2255 mg/kg	-
Methacrylic acid, monoester with propane-1,2-diol	LD50 Oral	Rat	11200 mg/kg	-
2,2'-Ethylenedioxydiethyl dimethacrylate	LD50 Oral	Rat	10837 mg/kg	-
p-Benzoquinone	LD50 Oral	Rat	130 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Vinyltoluene	Eyes - Mild irritant	Rabbit	-	90 mg	-
	Skin - Moderate irritant	Rabbit	-	100%	-
Silicon dioxide	Eyes - Mild irritant	Rabbit	-	24 hours 25 mg	-

Sensitization

There is no data available.

Mutagenicity

There is no data available.

Carcinogenicity

Classification

Product/ingredient name	OSHA	IARC	NTP
Crystalline silica	-	1	Known to be a human carcinogen.
Vinyltoluene	-	3	-
Silicon dioxide	-	3	-
Titanium dioxide	-	2B	-
p-Benzoquinone	-	3	-

Reproductive toxicity

There is no data available.

Section 11. Toxicological information

Teratogenicity

There is no data available.

Specific target organ toxicity (single exposure)

Name	Category	Target organs
p-Benzoquinone	Category 3	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Name	Category	Target organs
Crystalline silica	Category 1	respiratory tract

Aspiration hazard

There is no data available.

Information on the likely routes of exposure : Dermal contact. Eye contact. Inhalation. Ingestion.

Potential acute health effects

Eye contact : Causes serious eye irritation.
Inhalation : No known significant effects or critical hazards.
Skin contact : May cause an allergic skin reaction.
Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
 pain or irritation
 watering
 redness
Inhalation : No known significant effects or critical hazards.
Skin contact : Adverse symptoms may include the following:
 irritation
 redness
Ingestion : No known significant effects or critical hazards.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : No known significant effects or critical hazards.
Potential delayed effects : No known significant effects or critical hazards.

Long term exposure

Potential immediate effects : No known significant effects or critical hazards.
Potential delayed effects : No known significant effects or critical hazards.

Potential chronic health effects

General : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
Carcinogenicity : No known significant effects or critical hazards.
Mutagenicity : No known significant effects or critical hazards.
Teratogenicity : No known significant effects or critical hazards.

Section 11. Toxicological information

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	44215.7 mg/kg

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Vinyltoluene	Acute EC50 1 to 10 mg/L Fresh water Acute LC50 8.9 mg/L Marine water	Daphnia - Daphnia magna Crustaceans - Chaetogammarus marinus - Young	48 hours 48 hours
Titanium dioxide p-Benzoquinone	Acute LC50 >1000000 µg/L Marine water Acute LC50 45 µg/L Fresh water	Fish - Fundulus heteroclitus Fish - Oncorhynchus mykiss	96 hours 96 hours

Persistence and degradability

There is no data available.

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Vinyltoluene	3.35	100 to 320	low
Methacrylic acid, monoester with propane-1,2-diol	0.97	-	low
2,2'-Ethylenedioxydiethyl dimethacrylate	1.88	-	low
p-Benzoquinone	0.2	-	low

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	TDG Classification	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-	-
Transport hazard class(es)	-	-	-	-
Packing group	-	-	-	-
Environmental hazards	No.	No.	No.	No.

AERG : Not applicable.

DOT-RQ Details : p-Benzoquinone 10 lbs / 4.54 kg

Additional information

DOT Classification : **Reportable quantity** 5941.8 lbs / 2697.6 kg. Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Section 15. Regulatory information

U.S. Federal regulations : **TSCA 8(a) PAIR:** Vinyltoluene
United States inventory (TSCA 8b): All components are listed or exempted.

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Section 15. Regulatory information

Classification : SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
SKIN SENSITIZATION - Category 1

Composition/information on ingredients

Name	Classification
Crystalline silica	CARCINOGENICITY - Category 1A SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (respiratory tract) (inhalation) - Category 1
Vinyltoluene	FLAMMABLE LIQUIDS - Category 3 SKIN CORROSION/IRRITATION - Category 2 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
Methacrylic acid, monoester with propane-1,2-diol	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A SKIN SENSITIZATION - Category 1
2,2'-Ethylenedioxydiethyl dimethacrylate	SKIN SENSITIZATION - Category 1B
Silicon dioxide	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
Titanium dioxide	CARCINOGENICITY - Category 2

SARA 313

There is no data available.

State regulations

Massachusetts : The following components are listed: Crystalline silica; Vinyltoluene; Silicon dioxide
New York : None of the components are listed.
New Jersey : The following components are listed: Crystalline silica; Vinyltoluene; Titanium dioxide
Pennsylvania : The following components are listed: Crystalline silica; Vinyltoluene; Silicon dioxide; Titanium dioxide

California Prop. 65

⚠ WARNING: This product can expose you to chemicals including Titanium dioxide, Crystalline silica, which are known to the State of California to cause cancer, and N-methyl-2-pyrrolidone, Ethanediol, which are known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Canada

Canadian lists

Canadian NPRI : None of the components are listed.
CEPA Toxic substances : None of the components are listed.
Canada inventory (DSL NDSL) : At least one component is not listed in DSL but all such components are listed in NDSL.

Section 16. Other information

Procedure used to derive the classification

Classification	Justification
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A SKIN SENSITIZATION - Category 1	Calculation method Calculation method

History

Date of issue mm/dd/yyyy : 05/30/2018
Date of previous issue : 03/15/2018
Version : 3.1
Prepared by : KMK Regulatory Services Inc.

Section 16. Other information

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

SAFETY DATA SHEET

Torque Lock Part B

Section 1. Identification

GHS product identifier : Torque Lock Part B
Product code :
Other means of identification :
Product type : Hardener Component

Relevant identified uses of the substance or mixture and uses advised against

Identified uses : A Chemical anchoring application

Supplier's details : Torque Lock Structural Systems
 28436 Roadside Dr.
 Agoura Hills, CA 91301
 818-436-2953

Emergency telephone number (with hours of operation) : CHEM TEL: 800-255-3924 24/7

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
 SKIN SENSITIZATION - Category 1

GHS label elements

Hazard pictograms :



Signal word : Warning

Hazard statements : H319 - Causes serious eye irritation.
 H317 - May cause an allergic skin reaction.

Precautionary statements

Prevention : P280 - Wear protective gloves. Wear eye or face protection.
 P261 - Avoid breathing dust.
 P264 - Wash hands thoroughly after handling.
 P272 (OSHA) - Contaminated work clothing must not be allowed out of the workplace.



Section 2. Hazards identification

- Response** : P302 + P352 + P363 - IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse.
P333 + P313 - If skin irritation or rash occurs: Get medical attention.
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 - If eye irritation persists: Get medical attention.
- Storage** : Not applicable.
- Disposal** : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
- Hazards not otherwise classified** : None known.

Section 3. Composition/information on ingredients

- Substance/mixture** : Mixture
- Other means of identification** :

Ingredient name	%	CAS number
Dibenzoyl peroxide	≥10 - ≤25	94-36-0
Ethanediol	≥5 - ≤10	107-21-1

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Wash with plenty of soap and water. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 20 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Section 4. First aid measures

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : May cause an allergic skin reaction.
- Ingestion** : No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
- Ingestion** : No known significant effects or critical hazards.

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

- Specific hazards arising from the chemical** : No specific fire or explosion hazard.

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
metal oxide/oxides

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

- Small spill** : Move containers from spill area. Avoid dust generation. Using a vacuum with HEPA filter will reduce dust dispersal. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures.

- Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

United States

Occupational exposure limits

Ingredient name	Exposure limits
Dibenzoyl peroxide	ACGIH TLV (United States, 3/2017). TWA: 5 mg/m ³ 8 hours. NIOSH REL (United States, 10/2016). TWA: 5 mg/m ³ 10 hours. OSHA PEL (United States, 6/2016). TWA: 5 mg/m ³ 8 hours.
Ethanediol	ACGIH TLV (United States, 3/2017). STEL: 10 mg/m ³ 15 minutes. Form: Inhalable fraction. Aerosol only STEL: 50 ppm 15 minutes. Form: Vapor fraction TWA: 25 ppm 8 hours. Form: Vapor fraction

Canada

Occupational exposure limits

Ingredient name	Exposure limits
Dibenzoyl peroxide	CA Alberta Provincial (Canada, 4/2009). 8 hrs OEL: 5 mg/m ³ 8 hours. CA British Columbia Provincial (Canada, 7/2016). TWA: 5 mg/m ³ 8 hours. CA Ontario Provincial (Canada, 7/2015). TWA: 5 mg/m ³ 8 hours. CA Quebec Provincial (Canada, 1/2014). TWAEV: 5 mg/m ³ 8 hours. CA Saskatchewan Provincial (Canada, 7/2013). STEL: 10 mg/m ³ 15 minutes. TWA: 5 mg/m ³ 8 hours.
Ethanediol	CA Ontario Provincial (Canada, 7/2015). C: 100 mg/m ³ Form: Aerosol only CA British Columbia Provincial (Canada, 7/2016). C: 100 mg/m ³ Form: Aerosol. TWA: 10 mg/m ³ 8 hours. Form: Particulate. STEL: 20 mg/m ³ 15 minutes. Form: Particulate. C: 50 ppm Form: Vapor CA Saskatchewan Provincial (Canada, 7/2013). CEIL: 100 mg/m ³ Form: Aerosol. CA Quebec Provincial (Canada, 1/2014). STEV: 50 ppm 15 minutes. Form: Vapor and mist STEV: 127 mg/m ³ 15 minutes. Form: Vapor and mist CA Alberta Provincial (Canada, 4/2009). C: 100 mg/m ³

Appropriate engineering controls

- : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Environmental exposure controls

- : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

Individual protection measures

Hygiene measures

- : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Section 8. Exposure controls/personal protection

- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

- Physical state** : Solid. [Paste.]
- Color** : Gray.
- Odor** : Barely perceptible.
- Odor threshold** : Not available.
- pH** : Not available.
- Melting point** : Not available.
- Boiling point** : Not available.
- Flash point** : Not available.
- Evaporation rate** : Not available.
- Flammability (solid, gas)** : Not available.
- Lower and upper explosive (flammable) limits** : Not available.
- Vapor pressure** : Not available.
- Vapor density** : Not available.
- Relative density** : 1.45
- Solubility** : Insoluble in the following materials: cold water and hot water.
- Partition coefficient: n-octanol/water** : Not available.
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : 50°C (122°F)
- Viscosity** : Not available.
- Flow time (ISO 2431)** : Not available.

Section 10. Stability and reactivity

- Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- Chemical stability** : The product is stable.
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- Conditions to avoid** : No specific data.
- Incompatible materials** : Reactive or incompatible with the following materials: oxidizing materials, reducing materials, metals, acids and alkalis.
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Dibenzoyl peroxide	LD50 Oral	Rat	6400 mg/kg	-
Ethanediol	LD50 Oral	Rat	4700 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Dibenzoyl peroxide	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
Ethanediol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Eyes - Mild irritant	Rabbit	-	1 hours 100 mg	-
	Eyes - Moderate irritant	Rabbit	-	6 hours 1440 mg	-
	Skin - Mild irritant	Rabbit	-	555 mg	-

Sensitization

There is no data available.

Mutagenicity

There is no data available.

Carcinogenicity

Classification

Product/ingredient name	OSHA	IARC	NTP
Dibenzoyl peroxide	-	3	-

Reproductive toxicity

There is no data available.

Teratogenicity

There is no data available.

Specific target organ toxicity (single exposure)

There is no data available.

Specific target organ toxicity (repeated exposure)

There is no data available.

Aspiration hazard

There is no data available.

Section 11. Toxicological information

Information on the likely routes of exposure : Dermal contact. Eye contact. Inhalation. Ingestion.

Potential acute health effects

Eye contact : Causes serious eye irritation.
Inhalation : No known significant effects or critical hazards.
Skin contact : May cause an allergic skin reaction.
Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
 pain or irritation
 watering
 redness
Inhalation : No known significant effects or critical hazards.
Skin contact : Adverse symptoms may include the following:
 irritation
 redness
Ingestion : No known significant effects or critical hazards.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : No known significant effects or critical hazards.
Potential delayed effects : No known significant effects or critical hazards.

Long term exposure

Potential immediate effects : No known significant effects or critical hazards.
Potential delayed effects : No known significant effects or critical hazards.

Potential chronic health effects

General : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
Carcinogenicity : No known significant effects or critical hazards.
Mutagenicity : No known significant effects or critical hazards.
Teratogenicity : No known significant effects or critical hazards.
Developmental effects : No known significant effects or critical hazards.
Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	10000 mg/kg

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Ethanediol	Acute LC50 6900000 µg/L Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
	Acute LC50 41000000 µg/L Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 8050000 µg/L Fresh water	Fish - Pimephales promelas	96 hours

Persistence and degradability

There is no data available.

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Dibenzoyl peroxide	3.2	-	low
Ethanediol	-1.36	-	low

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	TDG Classification	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-	-
Transport hazard class(es)	-	-	-	-
Packing group	-	-	-	-
Environmental hazards	No.	No.	No.	No.

Section 14. Transport information

AERG : Not applicable.

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Section 15. Regulatory information

U.S. Federal regulations : **TSCA 8(a) CDR Exempt/Partial exemption:** Not determined
United States inventory (TSCA 8b): All components are listed or exempted.

Clean Air Act Section 112 : Listed
(b) Hazardous Air Pollutants (HAPs)
Clean Air Act Section 602 : Not listed
Class I Substances
Clean Air Act Section 602 : Not listed
Class II Substances
DEA List I Chemicals : Not listed
(Precursor Chemicals)
DEA List II Chemicals : Not listed
(Essential Chemicals)

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
 SKIN SENSITIZATION - Category 1

Composition/information on ingredients

Name	Classification
Dibenzoyl peroxide	ORGANIC PEROXIDES - Type B SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A SKIN SENSITIZATION - Category 1
Ethanediol	ACUTE TOXICITY (oral) - Category 4 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A

SARA 313

	Product name	CAS number
Form R - Reporting requirements	Dibenzoyl peroxide Ethanediol	94-36-0 107-21-1
Supplier notification	Dibenzoyl peroxide Ethanediol	94-36-0 107-21-1

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

Massachusetts : The following components are listed: Limestone; Dibenzoyl peroxide; Ethanediol
New York : The following components are listed: Ethanediol

Section 15. Regulatory information

- New Jersey** : The following components are listed: Limestone; Dibenzoyl peroxide; Ethanediol
- Pennsylvania** : The following components are listed: Limestone; Dibenzoyl peroxide; Ethanediol
- California Prop. 65**

⚠ WARNING: This product can expose you to Ethanediol, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Ingredient name	No significant risk level	Maximum acceptable dosage level
Ethanediol	-	Yes.

Canada

Canadian lists

- Canadian NPRI** : The following components are listed: Dibenzoyl peroxide; Ethanediol
- CEPA Toxic substances** : None of the components are listed.
- Canada inventory (DSL NDSL)** : All components are listed or exempted.

Section 16. Other information

Procedure used to derive the classification

Classification	Justification
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A	Calculation method
SKIN SENSITIZATION - Category 1	Calculation method

History

- Date of issue mm/dd/yyyy** : 12/30/2017
- Date of previous issue** : 05/01/2016
- Version** : 2
- Prepared by** : KMK Regulatory Services Inc.

Notice to reader

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