

**Safety Data Sheet**  
*acc. to OSHA HCS*

Printing date 06/10/2020

Version 2.1

Last revision 06/10/2020

**1 Identification**

- **Product name:** Colloidal Silica Suspension, Water free, 0.05 micron
- **Part number:** 180-22010
- **Application of the substance / the mixture** Polishing solution
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Allied High Tech Products Inc.  
2376 East Pacifica Place  
USA-RANCHO DOMINGUEZ, CA 90220  
USA  
info@alliedhightech.com
- **Information department:** Product safety department
- **Emergency telephone number:**  
During normal opening times: +1 (310) 635-2466  
Chemtrec: +1 (202) 483-7616

**\* 2 Hazard(s) identification**

- **Classification of the substance or mixture**



GHS08 Health hazard

STOT RE 2 H373 May cause damage to the lung, the kidneys, the liver, the reproductive system, the mucous membrane, the blood and the nervous system through prolonged or repeated exposure.

- **Additional information:** Hazard determining components of labeling may be partially affected by: ethylene glycol

- **Label elements**

· **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS08

- **Signal word** Warning

- **Hazard statements**

May cause damage to the lung, the kidneys, the liver, the reproductive system, the mucous membrane, the blood and the nervous system through prolonged or repeated exposure.

- **Precautionary statements**

Do not breathe dust/fume/gas/mist/vapors/spray.

Get medical advice/attention if you feel unwell.

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

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### \* 3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

· <b>Hazardous components and components with occupational exposure limits:</b>			
107-21-1	ethylene glycol	⚠ Acute Tox. 4, H302	50-100%
7631-86-9	silicon dioxide, chemically prepared		25-50%

- **Additional information:** The specific chemical identity and/or exact percentage of the composition has been withheld as a trade secret.

### \* 4 First-aid measures

- **Description of first aid measures**
- **General information:**  
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **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**  
Dizziness  
Headache  
Nausea  
Eye irritation  
Dermatitis
- **Indication of any immediate medical attention and special treatment needed** No further relevant information available.

### \* 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**  
Alcohol resistant foam  
Carbon dioxide  
Fire-extinguishing powder  
Water spray  
Foam  
Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture** During heating or in case of fire poisonous gases are produced.
- **Advice for firefighters**
- **Protective equipment:** Wear fully protective suit.

### \* 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Keep away from ignition sources
- **Environmental precautions:** Dilute with plenty of water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to item 13.  
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.

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## \* 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:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**  
Store in a cool location.  
No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Store receptacle in a well ventilated area.
- **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**

<b>Components with limit values that require monitoring at the workplace:</b>	
<b>107-21-1 ethylene glycol</b>	
TLV	Short-term value: 10** mg/m <sup>3</sup> , 50* ppm Long-term value: 25* ppm *vapor fraction:**inh. fraction, aerosol only
WEEL	I (2)
<b>7631-86-9 silicon dioxide, chemically prepared</b>	
PEL	Long-term value: 6 mg/m <sup>3</sup>
TLV	Long-term value: 10 mg/m <sup>3</sup>

- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
Keep away from foodstuffs, beverages and feed.  
Wash hands before breaks and at the end of work.  
Store protective clothing separately.
- **Breathing equipment:** Use suitable respiratory protective device when high concentrations are present.
- **Protection of hands:** Not required.
- **Material of gloves**  
Nitrile rubber, NBR  
PVC gloves
- **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:**



Tightly sealed goggles

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### \* 9 Physical and chemical properties

· <b>Information on basic physical and chemical properties</b>	
· <b>General Information</b>	
· <b>Appearance:</b>	
Form:	Suspension
Color:	Translucent
· <b>Odor:</b>	Mild
· <b>Odor threshold:</b>	Not determined.
· <b>pH-value at 20 °C (68 °F):</b>	8.9 (10% in DI water)
· <b>Change in condition</b>	
Melting point/Melting range:	<13 °C (<55.4 °F) (est.)
Boiling point/Boiling range:	195 °C (383 °F)
· <b>Flash point:</b>	>115.6 °C (>240.1 °F)
· <b>Flammability (solid, gaseous):</b>	Not applicable.
· <b>Decomposition temperature:</b>	Not determined.
· <b>Auto igniting:</b>	Product is not selfigniting.
· <b>Danger of explosion:</b>	Product does not present an explosion hazard.
· <b>Explosion limits:</b>	
Lower:	3.2 Vol %
Upper:	15.3 Vol %
· <b>Vapor pressure at 20 °C (68 °F):</b>	0.1 hPa (est.)
· <b>Density:</b>	Not determined.
· <b>Relative density</b>	Not determined.
· <b>Vapor density at 20 °C (68 °F)</b>	2.14 (est.)
· <b>Specific gravity:</b>	1.24
· <b>Evaporation rate</b>	<1
· <b>Solubility in / Miscibility with</b>	
Water:	Fully miscible.
· <b>Partition coefficient (n-octanol/water):</b> Not determined.	
· <b>Viscosity:</b>	
Dynamic at 20 °C (68 °F):	21.5 mPas
Kinematic:	Not determined.
· <b>Solvent content:</b>	
VOC content:	73.91 %
Solids content:	26.1 %
· <b>Other information</b>	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** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** Carbon monoxide and carbon dioxide
- **Additional information:** Hazardous decomposition products may form during combustion.

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## 11 Toxicological information

- **Information on toxicological effects**

- **Acute toxicity:**

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

<b>ATE (Acute Toxicity Estimate)</b>		
Dermal	LD50	>7,666 mg/kg (rabbit)

<b>107-21-1 ethylene glycol</b>		
Oral	LD50	5,840 mg/kg (rat)
Dermal	LD50	9,430 mg/kg (rabbit)

<b>7631-86-9 silicon dioxide, chemically prepared</b>		
Oral	LD50	7,000 mg/kg (mouse)
Dermal	LD50	>2,000 mg/kg (rabbit)

- **Primary chemical irritant effect:**

- **on the skin:** No irritant effect.

- **on the eye:** No irritating effect.

- **Sensitization:** No sensitizing effects known.

- **Additional toxicological information:**

- Abrasive eye irritant

- Abrasive skin irritant

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

7631-86-9	silicon dioxide, chemically prepared	3
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- **NTP (National Toxicology Program)**

None of the ingredients is listed.
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- **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** Moderately /partly biodegradable

- **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 (Self-assessment): slightly hazardous for water

- Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

- **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:** Contact waste processors for recycling information.

- **Uncleaned packagings:**

- **Recommendation:** Disposal must be made according to official regulations.

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· **Recommended cleansing agent:** Water, if necessary with cleansing agents.

## 14 Transport information

· UN-Number · DOT, IMDG, IATA	not regulated
· UN proper shipping name · DOT, IMDG, IATA	not regulated
· Transport hazard class(es) · DOT, ADN, IMDG, IATA · Class	not regulated
· Packing group · DOT, IMDG, IATA	not regulated
· Environmental hazards: · Marine pollutant:	No
· Special precautions for user	Not applicable.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· UN "Model Regulation":	not regulated

## \*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): 107-21-1   ethylene glycol
· TSCA (Toxic Substances Control Act): All components have the value ACTIVE.
· Hazardous Air Pollutants 107-21-1   ethylene glycol
· 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: 107-21-1   ethylene glycol
· 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:** Environment protection department.  
 · **Contact:** Kim Dermit

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- **Last revision / supersedes version:** 06/10/2020 / 2.0
- **Supersedes date:** 04/30/2020
- **Abbreviations and acronyms:**
  - IMDG: International Maritime Code for Dangerous Goods
  - DOT: US Department of Transportation
  - IATA: International Air Transport Association
  - 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)
  - VOC: Volatile Organic Compounds (USA, EU)
  - LC50: Lethal concentration, 50 percent
  - LD50: Lethal dose, 50 percent
  - PBT: Persistent, Bioaccumulative and Toxic
  - vPvB: very Persistent and very Bioaccumulative
  - OSHA: Occupational Safety & Health
  - TLV: Threshold Limit Value
  - PEL: Permissible Exposure Limit
  - REL: Recommended Exposure Limit
  - Acute Tox. 4: Acute toxicity – Category 4
  - STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2
- **\* Data compared to the previous version altered.**