

Safety Data Sheet
acc. to OSHA HCS

Printing date 06/14/2018

Reviewed on 06/14/2018

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.

- **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.

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

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



Health = 2
Fire = 0
Reactivity = 0

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



Health = 2
Fire = 0
Reactivity = 0

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

3 Composition/information on ingredients

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

· **Hazardous Components:**

107-21-1	ethylene glycol	⚠ Acute Tox. 4, H302	50-100%
7631-86-9	silicon dioxide, chemically prepared	⚠ Acute Tox. 4, H332	25-50%

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** 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:** 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.

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- **Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Mount respiratory protective device.
- **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.
- **Protective Action Criteria for Chemicals**

· **PAC-1:**

107-21-1	ethylene glycol	30 ppm
7631-86-9	silicon dioxide, chemically prepared	18 mg/m ³

· **PAC-2:**

107-21-1	ethylene glycol	150 ppm
7631-86-9	silicon dioxide, chemically prepared	740 mg/m ³

· **PAC-3:**

107-21-1	ethylene glycol	900 ppm
7631-86-9	silicon dioxide, chemically prepared	4,500 mg/m ³

7 Handling and storage

- **Handling:**
- **Precautions for safe handling** Prevent formation of aerosols.
- **Information about protection against explosions and fires:** Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** 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**

· **Components with limit values that require monitoring at the workplace:**

107-21-1 ethylene glycol

TLV	Short-term value: 10** mg/m ³ , 50* ppm Long-term value: 25* ppm *vapor fraction; **inh. fraction, aerosol only
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WEEL	1 (2)
7631-86-9 silicon dioxide, chemically prepared	
PEL	Long-term value: 6 mg/m ³
TLV	Long-term value: 10 mg/m ³

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
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:**



Protective gloves

- **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

9 Physical and chemical properties

· Information on basic physical and chemical properties	
· General Information	
· Appearance:	
Form:	Suspension
Color:	Translucent
· Odor:	Mild
· Odor threshold:	Not determined.
· pH-value at 20 °C (68 °F):	4 (5% in DI water)
· Change in condition	
Melting point/Melting range:	5 °C (41 °F) (est.)
Boiling point/Boiling range:	197 °C (386.6 °F)
· Flash point:	240 °C (464 °F)
· Flammability (solid, gaseous):	Not applicable.
· Ignition temperature:	410 °C (770 °F)
· Decomposition temperature:	Not determined.

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· Auto igniting:	Product is not selfigniting.
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits:	
Lower:	3.2 Vol %
Upper:	15.3 Vol %
· Vapor pressure at 20 °C (68 °F):	0.1 hPa (0.1 mm Hg) (est.)
· Density:	Not determined.
· Relative density	Not determined.
· Vapor density at 20 °C (68 °F)	2.14 (est.)
· Specific gravity:	1.24
· Evaporation rate	<<1
· Solubility in / Miscibility with Water:	Fully miscible.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
VOC content:	73.91 % 739.1 g/l / 6.17 lb/gl
Solids content:	26.1 %
· 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** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** Carbon monoxide and carbon dioxide

11 Toxicological information

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

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

ATE (Acute Toxicity Estimate)

Dermal	LD50	7,705 mg/kg (rabbit)
Inhalative	LC50/4 h	42.2 mg/l

107-21-1 ethylene glycol

Oral	LD50	5,840 mg/kg (rat)
Dermal	LD50	9,430 mg/kg (rabbit)

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7631-86-9 silicon dioxide, chemically prepared

Oral	LD50	7,000 mg/kg (mouse)
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Dermal	LD50	2,010 mg/kg (rabbit)
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Inhalative	LC50/4 h	11 mg/l (ATE)
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- **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.

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

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

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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:	
· Marine pollutant:	<i>No</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>
· UN "Model Regulation":	<i>not regulated</i>

15 Regulatory information

· Safety, health and environmental regulations/legislation specific for the substance or mixture	
· Sara	
· Section 355 (extremely hazardous substances):	
<i>None of the ingredients is listed.</i>	
· Section 313 (Specific toxic chemical listings):	
107-21-1	ethylene glycol
· TSCA (Toxic Substances Control Act):	
<i>All ingredients are listed.</i>	
· Proposition 65	
· Chemicals known to cause cancer:	
<i>None of the ingredients is listed.</i>	
· Chemicals known to cause reproductive toxicity for females:	
<i>None of the ingredients is listed.</i>	
· Chemicals known to cause reproductive toxicity for males:	
<i>None of the ingredients is listed.</i>	
· Chemicals known to cause developmental toxicity:	
107-21-1	ethylene glycol
· Carcinogenic categories	
· EPA (Environmental Protection Agency)	
<i>None of the ingredients is listed.</i>	
· TLV (Threshold Limit Value established by ACGIH)	
107-21-1	ethylene glycol

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

None of the ingredients is listed.

· **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

· **Date of preparation / last revision** 06/14/2018 / -

· **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)

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

NIOSH: National Institute for Occupational Safety

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