

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

Printing date 07/02/2024

Version 4.0

Last revision 06/01/2024

**\* 1 Identification**

- **Product name:** OpTech Polishing Slurry, 3 micron
- **Part number:** 90-188020, 90-188020-G
- **Application of the substance / the mixture** Polishing solution
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Allied High Tech Products Inc.  
16207 Carmenita Road  
USA-Cerritos, CA, 90703  
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**



GHS07

Sensitization - Skin 1 H317 May cause an allergic skin reaction.

Aquatic Acute 3 H402 Harmful to aquatic life.

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



GHS07

- **Signal word** Warning
- **Hazard-determining components of labeling:**  
2-methyl-2H-isothiazol-3-one
- **Hazard statements**  
May cause an allergic skin reaction.  
Harmful to aquatic life.
- **Precautionary statements**  
Avoid breathing dust/fume/gas/mist/vapors/spray  
Contaminated work clothing must not be allowed out of the workplace.  
Avoid release to the environment.

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Wear protective gloves.

If on skin: Wash with plenty of water.

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

Specific treatment (see on this label).

Wash contaminated clothing before reuse.

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

### 3 Composition/information on ingredients

· **Chemical characterization: Mixtures**· **Description:** Mixture of the substances listed below with nonhazardous additions.· **Hazardous components and components with occupational exposure limits:**

1344-28-1	aluminium oxide	30-40%
7631-86-9	silicon dioxide, chemically prepared	10-20%
102-71-6	Triethanolamine ⚠ Sensitization - Skin 1B, H317	0.1-<1%
141-43-5	2-aminoethanol ⚠ Skin Corrosion 1B, H314; ⚠ Acute Toxicity - Oral 4, H302; Acute Toxicity - Dermal 4, H312; Acute Toxicity - Inhalation 4, H332; Flammable Liquids 4, H227	<1%
2682-20-4	2-methyl-2H-isothiazol-3-one ⚠ Acute Toxicity - Oral 3, H301; Acute Toxicity - Dermal 3, H311; Acute Toxicity - Inhalation 2, H330; ⚠ Skin Corrosion 1B, H314; Eye Damage 1, H318; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Sensitization - Skin 1A, H317	0.025-<0.1%
111-42-2	2,2'-iminodiethanol ⚠ Carcinogenicity 2, H351; Specific Target Organ Toxicity - Repeated Exposure 2, H373; ⚠ Eye Damage 1, H318; ⚠ Acute Toxicity - Oral 4, H302; Skin Irritation 2, H315	<0.1%
14808-60-7	Quartz (SiO <sub>2</sub> ) ⚠ Carcinogenicity 1A, H350	<0.1%
107-22-2	glyoxal ⚠ Germ Cell Mutagenicity 2, H341; ⚠ Acute Toxicity - Inhalation 4, H332; Skin Irritation 2, H315; Eye Irritation 2A, H319; Sensitization - Skin 1, H317	<0.1%

· **Non-hazardous components:**

7732-18-5	water, distilled, conductivity or of similar purity	50-60%
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· **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**· **After inhalation:**

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

· **After skin contact:** Immediately wash with water and soap and rinse thoroughly.· **After eye contact:** Rinse opened eye for several minutes under running water.· **After swallowing:** If symptoms persist consult doctor.· **Information for doctor:**· **Most important symptoms and effects, both acute and delayed**

Allergic reactions

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:** Use fire fighting measures that suit the environment.· **Special hazards arising from the substance or mixture** No further relevant information available.

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- **Advice for firefighters**
- **Protective equipment:** No special measures required.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:**  
Do not allow to enter sewers/ surface or ground water.  
Inform respective authorities in case of seepage into water course or sewage system.  
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 section 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.

### 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**  
Ensure proper ventilation/exhaustion at workplaces.  
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:**  
Protect from frost.  
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 additional data. See 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 remaining constituent has no known exposure limits.

1344-28-1 aluminium oxide	
PEL	Long-term value: 15*; 5** mg/m <sup>3</sup> *Total dust; ** Respirable fraction
REL	Long-term value: 10* 5** mg/m <sup>3</sup> as Al*Total dust**Respirable/pyro powd./welding f.
TLV	Long-term value: 1* mg/m <sup>3</sup> as Al; *as respirable fraction, A4
7631-86-9 silicon dioxide, chemically prepared	
PEL	Long-term value: 6*3** mg/m <sup>3</sup> *total **respirable

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<b>102-71-6 Triethanolamine</b>	
TLV	Long-term value: 5 mg/m <sup>3</sup>
<b>141-43-5 2-aminoethanol</b>	
PEL	Long-term value: 6 mg/m <sup>3</sup> , 3 ppm
REL	Short-term value: 15 mg/m <sup>3</sup> , 6 ppm Long-term value: 8 mg/m <sup>3</sup> , 3 ppm
TLV	Short-term value: 6 ppm Long-term value: 3 ppm
<b>111-42-2 2,2'-iminodiethanol</b>	
REL	Long-term value: 15 mg/m <sup>3</sup> , 3 ppm
TLV	Long-term value: 1* mg/m <sup>3</sup> Skin; *inhalable fraction and vapor, A3
<b>14808-60-7 Quartz (SiO<sub>2</sub>)</b>	
PEL	Long-term value: 0.05* mg/m <sup>3</sup> *resp. dust; 30mg/m <sup>3</sup> /%SiO <sub>2</sub> +2
REL	Long-term value: 0.05* mg/m <sup>3</sup> *respirable dust; See Pocket Guide App. A
TLV	Long-term value: 0.025* mg/m <sup>3</sup> *respirable particulate matter, A2
<b>107-22-2 glyoxal</b>	
REL	See Pocket Guide App. C
TLV	Long-term value: 0.1* mg/m <sup>3</sup> DSEN;*as inh. fraction and vapor, A4
WEEL	Long-term value: 0.1 mg/m <sup>3</sup> DSEN; (H)

- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
Immediately remove all soiled and contaminated clothing.  
Wash hands before breaks and at the end of work.
- **Breathing equipment:** Use suitable respiratory protective device when high concentrations are present.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**  
Nitrile rubber, NBR  
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **Eye protection:** Goggles recommended during refilling.

## 9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**  
**Form:** Solution

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· <b>Color:</b>	White
· <b>Odor:</b>	Light
· <b>Odor threshold:</b>	Not determined.
· <b>pH-value at 20 °C (68 °F):</b>	9-10
· <b>Change in condition</b>	
<b>Melting point/Melting range:</b>	-10 °C (14 °F)
<b>Boiling point/Boiling range:</b>	110 °C (230 °F)
· <b>Flash point:</b>	Not applicable.
· <b>Flammability (solid, gaseous):</b>	Not applicable.
· <b>Decomposition temperature:</b>	Not determined.
· <b>Ignition temperature:</b>	Product is not selfigniting.
· <b>Danger of explosion:</b>	Product does not present an explosion hazard.
· <b>Explosion limits:</b>	
<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
· <b>Vapor pressure at 20 °C (68 °F):</b>	23 hPa (17.3 mm Hg)
· <b>Density:</b>	Not determined.
· <b>Relative density</b>	Not determined.
· <b>Vapor density</b>	Not determined.
· <b>Specific gravity at 4 °C (39.2 °F):</b>	1.1 g/cm <sup>3</sup> (9.18 lbs/gal) (Water = 1)
· <b>Evaporation rate</b>	Not determined.
· <b>Solubility in / Miscibility with Water:</b>	Fully miscible.
· <b>Partition coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity:</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
· <b>Solvent content:</b>	
<b>Organic solvents:</b>	0.9 %
<b>Water:</b>	55.4 %
<b>VOC content:</b>	0.93 %
<b>Solids content:</b>	44.6 %
· <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**
  - Keep away from alkaline solutions.
  - Keep away from oxidising agents and acidic substances.
  - Keep away from heat.
- **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:

### 1344-28-1 aluminium oxide

Oral	LD50	>5,000 mg/kg (rat)
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### 7631-86-9 silicon dioxide, chemically prepared

Oral	LD50	7,000 mg/kg (mouse)
Dermal	LD50	>2,000 mg/kg (rabbit)

### 102-71-6 Triethanolamine

Oral	LD50	8,000 mg/kg (rat)
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### 141-43-5 2-aminoethanol

Oral	LD50	2,050 mg/kg (rat)
Dermal	LD50	1,000 mg/kg (rabbit)
Inhalative	LC50/4 h	11 mg/l (ATE)

### 2682-20-4 2-methyl-2H-isothiazol-3-one

Oral	LD50	100 mg/kg (ATE)
Dermal	LD50	300 mg/kg (ATE)
Inhalative	LC50/4 h	0.05 mg/l (ATE)

### 111-42-2 2,2'-iminodiethanol

Oral	LD50	1,600 mg/kg (rat)
Dermal	LD50	12,200 mg/kg (rabbit)

### 107-22-2 glyoxal

Oral	LD50	7,070 mg/kg (rat)
Dermal	LD50	10,000 mg/kg (rabbit)
Inhalative	LC50/4 h	11 mg/l (ATE)

· Primary chemical irritant effect:

· on the skin: No irritant effect.

· on the eye: No irritating effect.

· Sensitization: Sensitization possible through skin contact.

· Additional toxicological information:

· Carcinogenic categories

· IARC (International Agency for Research on Cancer)

7631-86-9	silicon dioxide, chemically prepared	3
102-71-6	Triethanolamine	3
111-42-2	2,2'-iminodiethanol	2B
14808-60-7	Quartz (SiO <sub>2</sub> )	1

· NTP (National Toxicology Program)

14808-60-7	Quartz (SiO <sub>2</sub> )	K
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· OSHA-Ca (Occupational Safety &amp; Health Administration)

None of the ingredients is listed.

## 12 Ecological information

· Toxicity

· Aquatic toxicity: No further relevant information available.

· Persistence and degradability biodegradable

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- **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.

### 14 Transport information

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

### 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**  
No further relevant information available.
- **Sara**

· <b>Section 355 (extremely hazardous substances):</b>
None of the ingredients is listed.
· <b>Section 313 (Specific toxic chemical listings):</b>
1344-28-1 aluminium oxide
111-42-2 2,2'-iminodiethanol
· <b>TSCA (Toxic Substances Control Act):</b>
All components have the value ACTIVE.

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· <b>Hazardous Air Pollutants</b>	
111-42-2	2,2'-iminodiethanol
· <b>Proposition 65</b>	
· <b>Chemicals known to cause cancer:</b>	
111-42-2	2,2'-iminodiethanol
14808-60-7	Quartz (SiO <sub>2</sub> )
· <b>Chemicals known to cause reproductive toxicity for females:</b>	
None of the ingredients is listed.	
· <b>Chemicals known to cause reproductive toxicity for males:</b>	
None of the ingredients is listed.	
· <b>Chemicals known to cause developmental toxicity:</b>	
None of the ingredients is listed.	
· <b>Chemical safety assessment:</b> A Chemical Safety Assessment has not been carried out.	

### 16 Other information

To the best of our knowledge, the information contained herein is accurate. However, it does not describe a guarantee of product properties and does not establish a contractual legal relationship.

· **Department issuing SDS:** Technical Services

· **Contact:** Pablo Mendoza

· **Last revision / supersedes version:** 06/01/2024 / 3.0

· **Supersedes date:** 06/01/2022

· **Abbreviations and acronyms:**

ADR: Accord relatif au transport international 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

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

Flammable Liquids 4: Flammable liquids – Category 4

Acute Toxicity - Oral 3: Acute toxicity – Category 3

Acute Toxicity - Oral 4: Acute toxicity – Category 4

Acute Toxicity - Inhalation 2: Acute toxicity – Category 2

Skin Corrosion 1B: Skin corrosion/irritation – Category 1B

Skin Irritation 2: Skin corrosion/irritation – Category 2

Eye Damage 1: Serious eye damage/eye irritation – Category 1

Eye Irritation 2A: Serious eye damage/eye irritation – Category 2A

Sensitization - Skin 1: Skin sensitisation – Category 1

Sensitization - Skin 1A: Skin sensitisation – Category 1A

Sensitization - Skin 1B: Skin sensitisation – Category 1B

Germ Cell Mutagenicity 2: Germ cell mutagenicity – Category 2

Carcinogenicity 1A: Carcinogenicity – Category 1A

Carcinogenicity 2: Carcinogenicity – Category 2

Specific Target Organ Toxicity - Repeated Exposure 2: Specific target organ toxicity (repeated exposure) – Category 2

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

Aquatic Acute 3: Hazardous to the aquatic environment - acute aquatic hazard – Category 3

Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

· **\* Data compared to the previous version altered.**