

PRECISION SURFACES INTERNATIONAL, INC.

922 Ashland Houston, TX 77008-6734

713-426-2220 Fax: 713-426-2223

SAFETY DATA SHEET

SECTION 1: IDENTIFICATION

Product Name: Hi Purity Alumina Powder
Product Identifier: PSI-5650-1 or 5
Supplier: Precision Surfaces International, Inc.
922 Ashland, Houston, TX 77008-6734
Emergency Telephone: Infotrac 800-535-5053
Recommended Use:

SECTION 2: Hazard(s) Identification

Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

The product is not classified as hazardous according to OSHA GHS regulations within the United States.
The product is not classified as hazardous according to the CLP regulation.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC

Not applicable.

Information concerning particular hazards for human and environment

The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

Classification system

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.
The classification is in accordance with the latest editions of international substances lists, and is supplemented by information from technical literature and by information provided by the company.

Additional information

There are no other hazards not otherwise classified that have been identified.
0 percent of the mixture consists of component(s) of unknown toxicity

Label Elements

Labelling according to Regulation (EC) No 1272/2008

The product is not classified as hazardous according to OSHA GHS regulations within the United States.
This product does not have a classification according to the CLP regulation.

Hazard pictograms

Not Regulated

Signal Word

Not Regulated

Hazard-determining components of labelling

None

Hazard Statement(s)

Not Regulated

Precautionary Statements

Not Regulated

Hazard description**WHMIS-symbols**

Not hazardous under WHMIS.

NFPA ratings (scale 0 - 4)

Health: 0 Fire: 0 Reactivity: 0

HMIS ratings (scale 0 – 4)

Health: 0 Fire: 0 Reactivity: 0

HMIS Long Term Health Hazard Substances

None of the ingredients are listed.




Other hazards**Results of PBT and vPvB assessment**

PBT: Not applicable.

vPvB: Not applicable.

SECTION 3: Composition/Information on Ingredients**Mixtures****Description**

Mixture of substances listed below with nonhazardous additions.

Dangerous components		
CAS: 1344-28-1 EINECS: 215-691-6	Aluminum oxide Substance with a Community workplace exposure limit	≥ 98.7%
CAS: 1305-78-8 EINECS: 215-138-9	Calcium oxide  Xi R37/38-41  Eye Dam. 1, H318  Skin Irrit. 2, H315; STOT SE 3, H335	< 0,3%
CAS: 1309-37-1 EINECS: 215-168-2	Diiron trioxide / iron (III) oxide Substance with a Community workplace exposure limit	< 0,2%

Additional information

For the listed ingredients, the identity and exact percentages are being withheld as a trade secret. For the wording of the listed risk phrases refer to section 16.

SECTION 4: First-aid Measures

Description of first aid measures

General information

No special measures required.

After inhalation

Supply fresh air; consult doctor in case of complaints.

After skin contact

Brush off loose particles from skin. Immediately rinse with water. If skin irritation is experienced, consult a doctor.

After eye contact

Remove contact lenses if worn, if possible. Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

After swallowing

Rinse out mouth and then drink plenty of water. Do not induce vomiting; call for medical help immediately.

Most important symptoms and effects, both acute and delayed

Breathing difficulty, coughing, slight irritant effect on skin and mucous membranes, and slight irritant effect on eyes.

Hazards

Danger of impaired breathing.

Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Fire-fighting Measures

Extinguishing media

Suitable extinguishing agents

The product is not flammable. Use fire extinguishing methods suitable to surrounding conditions.

For safety reasons unsuitable extinguishing agents

None.

Special hazards arising from the substance or mixture

No further relevant information available.

Advice for firefighters

Protective equipment

Wear self-contained respiratory protective device. Wear fully protective suit.

Additional information

No further relevant information available.

SECTION 6: Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Avoid formation of dust. Do not breathe dust. For large spills, use respiratory protective device against the effects of fumes/dust/aerosol.

Environmental Precautions

Avoid release to the environment.

Methods and materials for containment and clean up

Pick up mechanically. Dispose of the material collected according to regulations. Send for recovery or disposal in suitable receptacles.

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.

SECTION 7: Handling and Storage

Precautions for safe handling

Use only in well ventilated areas. Prevent formation of dust. Any unavoidable deposit of dust must be regularly removed.

Information about fire - and explosion protection

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.

Information about storage in one common storage facility

Store away from foodstuffs. Do not store together with acids. Do not store together with alkalis (caustic solutions).

Further information about storage conditions

Keep container tightly sealed.

Specific end use(s)

No further relevant information available.

SECTION 8: Exposure Controls/Personal Protection

Additional information about design of technical facilities

No further data; see item 7.

Control Parameters

Ingredients with limit values that require monitoring at the workplace

1344-28-1 aluminum oxide	
PEL (USA)	Long-term value: 15*; 15** mg/m ³ *Total dust; ** Respirable fraction
REL (USA)	Long-term value: 10* 5** mg/m ³ as Al*Total dust**Respirable/pyro powd./welding f.
TLV (USA)	Long-term value: 1* mg/m ³ as Al; *as respirable fraction
EL (Canada)	Long-term value: 1,0 mg/m ³ respirable, as Al
EV (Canada)	Long-term value: 10 mg/m ³ total dust
1305-78-8 calcium oxide	
PEL (USA)	Long-term value: 5 mg/m ³
REL (USA)	Long-term value: 2 mg/m ³
TLV (USA)	Long-term value: 2 mg/m ³
EL (Canada)	Long-term value: 2 mg/m ³
EV (Canada)	Long-term value: 2 mg/m ³
1309-37-1 diiron trioxide/iron (III) oxide	
PEL (USA)	Long-term value: 10* 15** 5*** mg/m ³ *Fume; Rouge: **Total dust, ***respirable
REL (USA)	Long-term value: 5 mg/m ³ Dust & fume, as Fe
TLV (USA)	Long-term value: 5* mg/m ³ *as respirable fraction
EL (Canada)	Short-term value: 10** mg/m ³ Long-term value: 5* 10*** 3**** mg/m ³ *dust & fume**fume; Rouge: ***total dust****resp.
EV (Canada)	Long-term value: 5* 10** mg/m ³ *respirable, including Rouge;**total dust

DNELs: No further relevant information available.

PNECs: No further relevant information available.

Additional information: The lists valid during the making were used as basis.

Exposure controls

Personal protective equipment

General protective and hygienic measures

The usual precautionary measures are to be adhered to when handling chemicals. Keep away from foodstuffs, beverages and feed. Do not breathe dust. Avoid contact with the eyes and skin.

Respiratory protection

Not required under normal conditions of use. Use suitable respiratory protective device when high concentrations are present. For large spills, respiratory protection may be advisable.

Protection of hands

Wear gloves for the protection against mechanical hazards according to NIOSH or EN 388.

Eye protection

Safety glasses

Body protection

Not required under normal conditions of use. Protection may be required for spills.

Limitation and supervision of exposure into the environment

Avoid release to the environment.

Risk management measures

See Section 7 for additional information.

SECTION 9: Physical and Chemical Properties**Information on basic physical and chemical properties****General Information****Appearance**

Form:	Crystalline Powder
Color:	Whitish
Odor:	Odorless
Odor Threshold:	Not Determined
pH-value at 20°C (68°F):	8,0 – 9,5
Change in condition	
Melting Point/Melting Range:	>2000°C (>3632°F)
Boiling Point/Boiling Range:	>2900°C (>5252°F)
Flash Point:	Not Applicable
Flammability (solid, gaseous):	Not Determined
Auto/Self-ignition Temperature:	Not Determined
Decomposition Temperature:	Not Determined
Self-igniting:	Product is not self-igniting
Danger of explosion:	Product does not present an explosion hazard
Explosion Limits:	
Lower:	Not Determined
Upper:	Not Determined
Vapor Pressure:	Not Applicable
Density at 20°C (68°F):	3,8 g/cm ³ (32,546 lbs/gal)
Relative Density:	Not Determined
Vapor Density:	Not Applicable
Evaporation Rate:	Not Applicable
Solubility in / Miscibility with water:	Insoluble
Partition coefficient (n-octanol/water):	Not determined
Viscosity	
Dynamic:	Not Applicable
Kinematic:	Not Applicable
Other Information	No further information available

SECTION 10: Stability and Reactivity**Reactivity****Chemical Stability**

Thermal decomposition / conditions to be avoided

No decomposition if used and stored according to specifications.

Conditions to avoid

No further relevant information available.

Possibility of hazardous reactions

Reacts with strong acids and alkali. Reacts with strong oxidizing agents.

Incompatibility

Oxidizers, strong bases, strong acids

Hazardous Decomposition Products

Toxic metal compounds

SECTION 11: Toxicological Information
--

Acute Toxicity**LD/LC50 values relevant for classification**

None.

Primary irritant effect**On the skin**

Slight irritant effect on skin and mucous membranes.

On the eye

Slight irritant effect on eyes.

Sensitization

No sensitizing effects known.

Subacute to chronic toxicity

No further relevant information available.

Additional toxicological information

The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version. When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.

Acute effects (acute toxicity, irritation and corrosivity)

None.

Repeated dose toxicity

No further relevant information available.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

None.

SECTION 12: Ecological Information

Toxicity

Aquatic toxicity

No further relevant information available.

Persistence and degradability

No further relevant information available.

Bioaccumulative potential

No further relevant information available.

Mobility in soil

No further relevant information available.

Additional ecological information

General notes

Generally not hazardous for water

Results of PBT and vPvB assessment

PBT Not applicable.

vPvB Not applicable.

Other adverse effects

No further relevant information available.

SECTION 13: Disposal Considerations

Waste treatment methods

Recommendation

Smaller quantities can be disposed of with household waste. The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.

Uncleaned packaging

Recommendation

Disposal must be made according to official regulations.

SECTION 14: Transport Information

UN-Number

DOT, ADR, ADN, IMDG, IATA

Not Regulated

UN proper shipping name

DOT, ADR, ADN, IMDG, IATA

Not Regulated

Transport hazard class(es)

DOT, ADR, ADN, IMDG, IATA Class

Not Regulated

Packing group

DOT, ADR, 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"	-

SECTION 15: Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture United States (USA)

SARA

Section 355 (extremely hazardous substances)	None of the ingredients are listed
Section 313 (Specific toxic chemical listings)	All ingredients are listed
TSCA (Toxic Substances Control Act)	All ingredients are listed
Proposition 65 (California)	
Chemicals known to cause cancer	Present in trace quantities. 13463-67-7 titanium dioxide

Chemicals known to cause reproductive toxicity for females

None of the ingredients are listed

Chemicals known to cause reproductive toxicity for males

None of the ingredients are listed

Chemicals known to cause developmental toxicity Carcinogenic Categories

None of the ingredients are listed

EPA (Environmental Protection Agency)

None of the ingredients are listed

IARC (International Agency for Research on Cancer)

1309-37-1 diiron trioxide / iron (III) oxide

3

TLV (Threshold Limit Value established by ACGIH)

1344-28-1 aluminum oxide

A4

1309-37-1 diiron trioxide / iron (III) oxide

A4

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

None of the ingredients are listed

Canada

Canadian Domestic Substances List (DSL)

All ingredients are listed

Canadian Ingredient Disclosure list (limit 0.1%)

None of the ingredients are listed

Canadian Ingredient Disclosure list (limit 1%)

All ingredients are listed

Other regulations, limitations and prohibitive regulations

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.

Substances of very high concern (SVHC) according to REACH, Article 57

None of the ingredients are listed

Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

SECTION 16: Other Information

Relevant phrases

H315 Causes skin irritation.

H318 Causes serious eye damage.

H335 May cause respiratory irritation.

R37/38 Irritating to respiratory system and skin.

R41 Risk of serious damage to eyes.

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

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

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)

WHMIS: Workplace Hazardous Materials Information System (Canada)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

The above information and recommendation are believed to be accurate and reliable. However, no warranty, either expressed or implied, is made as to its accuracy or completeness and none is made as to fitness of this material for any purpose. The manufacturer or supplier shall not be liable for damages to person or property resulting from its use. Nothing herein shall be construed as a recommendation for use in violation of any patent.

Manufacturer Issue Date: 05/22/15

Supplier Review Date: 04/15/16