

SAFETY DATA SHEET

Reference Material Active Metal Dispersion 31%

Date of Preparation: 08/14/2020

SDS #: 004-16825-00MSDS

SECTION 1: IDENTIFICATION

Product Identification: Engelhard Platinum on Alumina 31%

CAS Number: Not available

Volumes: Not available

Other Designations: Platinum on Alumina

Recommended Use: For laboratory use only.

Restrictions: For laboratory use only.

Supplier Information:

Micromeritics Instrument Corp.
4356 Communications Drive
Norcross, GA 30093-2901 USA

Contact: Human Resources
Phone: (770) 662-3636
Fax: (770) 662-3696

Manufacturer: Engelhard, 101 Wood Avenue, Iselin, NJ 08830-0770, Phone (800)336-3559 or (800)321-2747

SECTION 2: HAZARDS IDENTIFICATION

GHS Classification:

Flammable solids (Category 1), H228

Acute toxicity, Inhalation (Category 4), H332

Signal word: Danger

Hazard Statement:

H228: Flammable solid

H305: May be harmful if swallowed and enters airways

H316: Causes mild skin irritation

H332: Harmful if inhaled

Pictograms:



Precautionary Statements:

P210: Keep away from heat/sparks/open flames/hot surfaces- no smoking.

P240: Ground/bond container and receiving equipment.

P241: Use explosion-proof electrical/ ventilating/ lighting equipment.

P261: Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray

P271: Use only outdoors or in a well-ventilated area.

P280: Wear eye protection/ face protection

P285: In case of inadequate ventilation wear respiratory protection

P304 + P340 + P312: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell.

P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P302 + P352: IF ON SKIN: Wash with plenty of soap and water

P370 + P378: In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient Name	CAS Number	% wt
Alumina	1344-28-1	99.5
Platinum	7440-06-4	0.5

Code: C3761 Prototype: 10166P 7/25/97

0.5% PLATINUM ON ALUMINA TABLETS, DRY, REDUCED

NOTE: The percentage by weight values reported for the ingredients in this product represent approximate formulation values.

NOTE: See Section 8 for Exposure Limits and Section 11 for Toxicological Information.

SECTION 4: FIRST-AID MEASURES

Inhalation: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

Eye Contact: Flush eyes with water as a precaution. Consult a physician.

Skin Contact: Wash off with soap and plenty of water. Consult a physician.

Ingestion: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Note to Physicians: Not applicable

Special Precautions/Procedures: Not applicable

SECTION 5: FIRE-FIGHTING MEASURES

Flammability Classification: Not applicable

Extinguishing Media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unusual Fire or Explosion Hazards: Contact with methanol or ethanol may cause a vigorous reaction, releasing flammable gases with a large amount of heat and a possible explosion.

Hazardous Combustion Products: Not applicable

Fire-Fighting Instructions: No special firefighting procedures are needed for this product.

Fire-Fighting Equipment: Not applicable

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions

Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. For personal protection see section 8.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for containment and cleaning up

Sweep up and shovel. Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal. Contain spillage, pick up with an electrically protected vacuum cleaner or by wet-brushing and transfer to a container for disposal according to local regulations (see section 13).

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

Avoid formation of dust and aerosols. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs. Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition - No smoking. Take measures to prevent the buildup of electrostatic charge.

Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place. Air sensitive. Keep in a dry place.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters:

Ingredient	OSHA PEL		ACGIH TLV		NIOSH REL		NIOSH
	TWA	STEL	TWA	STEL	TWA	STEL	IDLH
Alumina	Total dust: 10 mg/m ³ Resp. dust: 5 mg/m ³	none estab.	Total dust: 10 mg/m ³ Resp. dust: 1 mg/m ³	none estab.	Total dust: 10 mg/m ³ Resp. dust: 5 mg/m ³	none estab.	none estab.
Platinum	1 mg/m ³	none estab.	1 mg/m ³	none estab.	1 mg/m ³	none estab.	none estab.

Unless otherwise noted, all values are reported as 8-hour Time-Weighted Averages (TWAs) and total dust (particulates only). All ACGIH TLVs refer to the 1994-95 Standards. All OSHA PELs refer to 29 CFR Part 1910 Air Contaminants: Final Rule, January 19, 1989*

*NOTE: As a result of the July 7, 1992 decision by the U.S. Circuit Court of Appeals (AFL-CIO v. OSHA) to vacate the 1989 PELs, OSHA will no longer enforce these new limits and will return to the pre-1989 PELs. Englehard, however, will continue to list the more protective 1989 levels.

Personal protective equipment

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye protection

Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection

Flame retardant antistatic protective clothing, the type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Flash Point: Not applicable

Flash Point Method: Not applicable

Burning Rate: Not applicable

Autoignition Temperature: Not applicable

LEL: Not applicable

UEL: Not applicable

Physical State: Powder

Appearance and Odor: Grey to black powder.

Odorless

Odor Threshold: Not applicable

Vapor Pressure: 1 mmHg at 2158°C

Vapor Density (Air=1): Not applicable

Formula Weight: Not applicable

Density: Not applicable

Specific Gravity (H₂O=1): 4.0

pH: Not applicable

Water Solubility: Insoluble

Other Solubilities: Not applicable

Boiling Point: 3147°C

Freezing/Melting Point: 2072°C

Viscosity: Not applicable

Refractive Index: Not applicable

Surface Tension: Not applicable

% Volatile: Not applicable

Evaporation Rate: Not applicable

SECTION 10: STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

no data available

Conditions to avoid

Heat, flames and sparks. Extremes of temperature and direct sunlight.

Materials to avoid

Halogenated hydrocarbon, Strong bases, Strong oxidizing agents, Strong acids, Vinyl compounds, Alcohols, Ethylene oxide, Chlorine trifluoride, Oxygen difluoride, Sodium nitrate

Hazardous Decomposition Products: May react vigorously with methanol or ethanol, relapsing flammable gases.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute toxicity:

Inhalation May be harmful if inhaled. May cause respiratory tract irritation.

Ingestion May be harmful if swallowed.

Skin May be harmful if absorbed through skin. May cause skin irritation.

Eyes May cause eye irritation.

Germ cell mutagenicity: No data available

Carcinogenicity:

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

Reproductive toxicity: No data available

Specific target organ toxicity - single exposure: No data available

Specific target organ toxicity - repeated exposure: No data available

Aspiration hazard: No data available

Additional Information:

RTECS: Not available

Prolonged or repeated exposure can cause: Damage to the lungs, Cough, chest pain, Difficulty in breathing, gastrointestinal disturbance

Liver - Irregularities - Based on Human Evidence Stomach - Irregularities - Based on Human Evidence

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity: Not Applicable

Environmental Fate: Not Applicable

Environmental Degradation: Not Applicable

Soil Absorption/Mobility: Not Applicable

SECTION 13: DISPOSAL CONSIDERATIONS

Disposal: Product Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Disposal Regulatory Requirements: US EPA Waste Number: Not regulated.

Federal, state and local disposal laws and regulations will determine the proper waste disposal / recycling/reclamation procedure. All waste materials should be reviewed to determine the applicable hazards (testing may be necessary). Disposal requirements are dependent on the hazard classification and will vary by location and the type of disposal selected.

****NOTE**** Chemical additions, processing or otherwise altering this material may make the waste management information presented above incomplete, inaccurate or otherwise inappropriate.

As local regulations may vary; all waste must be disposed/recycled/reclaimed in accordance with federal, state, and local environmental control regulations.

Container Cleaning and Disposal: Not applicable

SECTION 14: TRANSPORT INFORMATION

DOT Transportation Data (49 CFR 172.101):

Shipping Name: Not regulated

Shipping Symbols: Not Applicable

Hazard Class: Not regulated

ID No.: Not regulated

Packing Group: Not Applicable

Label: Not Applicable

Special Provisions (172.102):

Not Applicable

Packaging Authorizations

a) **Exceptions:** Not Applicable

b) **Non-bulk Packaging:** Not Applicable

c) **Bulk Packaging:** Not Applicable

Quantity Limitations

a) **Passenger, Aircraft, or Railcar:** Not Applicable

b) **Cargo Aircraft Only:** Not Applicable

Vessel Stowage Requirements

a) **Vessel Stowage:** Not Applicable

b) **Other:** Not Applicable

Canadian TDG Hazard Class & PIN – Not regulated

SECTION 15: REGULATORY INFORMATION

US Federal Regulations

TSCA: In TSCA

SARA 302 Components: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components: The following components are subject to reporting levels established by SARA Title III, Section 313:

Aluminium oxide CAS-No. 1344-28-1 Revision Date 1994-04-01 SARA

311/312 Hazards: Chronic Health Hazard

Massachusetts Right to Know Components:

Aluminium oxide CAS-No. 1344-28-1 Revision Date 1994-04-01

Platinum CAS-No. 7440-06-4 Revision Date 1993-02-16

Pennsylvania Right to Know Components

Aluminium oxide CAS-No. 1344-28-1 Revision Date 1994-04-01

Platinum CAS-No. 7440-06-4 Revision Date 1993-02-16

New Jersey Right to Know Components

Aluminium oxide CAS-No. 1344-28-1 Revision Date 1994-04-01

Platinum CAS-No. 7440-06-4 Revision Date 1993-02-16

California Prop. 65 Components: This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

OZONE DEPLETING SUBSTANCES (ODS)

This product neither contains nor is manufactured with an ozone depleting substance subject to the labeling requirements of the Clear Air Act Amendments 1990 and CFR Part 82.

VOLATILE ORGANIC COMPOUNDS (VOC)

None

EPA Regulations: Not applicable

OSHA Regulations: Not applicable

State Regulations:

VOLATILE ORGANIC COMPOUNDS (CARB): None

Canadian Regulations:

DSL/NDSL: Not determined.

WHMIS Classification: Not determined.

European Regulations:

EINECS: Not determined.

Other Regulations:

MITI: Not determined.

AICS: Not determined.

UN Number: Not Regulated

DOT: Not Regulated

SECTION 16: OTHER INFORMATION

Prepared By: Zuniga, A.

Revision Notes:

Rev. A – Revision (07/97)

Rev. B – Revision (07/30/04)

Rev. C – Revision (03/24/09)

Rev. D – Changed description (02/24/10)

Rev. E – Update to new standard (10/29/14)

Rev. F – Update to EU REACH requirements (08/14/20)

Abbreviations Key:

CAS: Chemical Abstracts Service

GHS: Globally Harmonized System

OSHA: Occupational Safety and Health Act

PEL: Permissible Exposure Limit

ACGIH: American Conference of Government Industrial Hygienists

TLV: Threshold Limit Values

NIOSH: National Institute for Occupational Safety and Health

REL: Recommended Exposure Limit

TWA: Time Weighted Average

STEL: Short-Term Exposure Limit

IDLH: Immediately Dangerous to Life or Health

Literature References:

Sigma-Aldrich Platinum on Alumina SDS

Additional Hazard Rating Systems: Not Applicable

Disclaimer: The information presented herein is believed to be accurate and was obtained from sources believed to be reliable. However, the information is provided without any representation or warranty, expressed or implied, with respect to its accuracy or completeness. It is the users' responsibility to determine the suitability of this product and the relevance of this information for their use.