Safety Data Sheet acc. to OSHA HCS

Printing date 01/22/2014

Stock number: 00262

Reviewed on 10/03/2012

1 Identification

Product identifier Product name: <u>Platinum foil</u>

CAS Number: 7440-06-4 EC number: 231-116-1 Relevant identified uses of the substance or mixture and uses advised against. No further relevant information available. Identified use: SU24 Scientific research and development

Details of the supplier of the safety data sheet Manufacturer/Supplier: Alfa Aesar, A Johnson Matthey Company

Alla Aesal, A Johnson Matthey Company Johnson Matthey Catalog Company, Inc. 30 Bond Street Ward Hill, MA 01835-8099 Tel: 800-343-0660 Fax: 800-322-4757 Email: tech@alfa.com www.alfa.com Information Department: Health, Safety and Environmental Department Emergency telephone number: During normal hours the Health, Safety and Environmental Department at (800) 343-0660. After normal hours call Carechem 24 at (866) 928-0789.

2 Hazard(s) identification

Classification of the substance or mixture Classification according to Regulation (EC) No 1272/2008 The substance is not classified as hazardous to health or the environment 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: Not applicable No information known. Hazards not otherwise classified No information known. Label elements Labelling according to Regulation (EC) No 1272/2008 Not applicable Hazard pictograms Not applicable **Signal word** Not applicable Hazard statements Not applicable WHMIS classification Not controlled Classification system HMIS ratings (scale 0-4) (Hazardous Materials Identification System)

HEALTH 0 FIRE 0 REACTIVITY 0

Health (acute effects) = 0 Flammability = 0 Physical Hazard = 0

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

3 Composition/information on ingredients

Chemical characterization: Substances CAS# Description: 7440-06-4 Platinum Identification number(s): EC number: 231-116-1

4 First-aid measures

Description of first aid measures General information No special measures required. After inhalation Seek medical treatment in case of complaints. After skin contact Generally the product does not irritate the skin.

(Contd. on page 2)

USA

Reviewed on 10/03/2012

(Contd. of page 1)

Safety Data Sheet

acc. to OSHA HCS

Printing date 01/22/2014

Product name: Platinum foil

After eye contact Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor. 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 Special powder for metal fires. Do not use water. For safety reasons unsuitable extinguishing agents Water Special hazards arising from the substance or mixture If this product is involved in a fire, the following can be released: Metal oxide fume 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 material to be released to the environment without proper governmental permits. Do not allow product to reach sewage system or any water course. Do not allow to penetrate the ground/soil. Methods and material for containment and cleaning up: Pick up mechanically. Prevention of secondary hazards: No special measures required. 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
Keep container tightly sealed.
Store in cool, dry place in tightly closed containers.
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: No special requirements.
Information about storage in one common storage facility: Not required.
Further information about storage conditions:

Keep container tightly sealed. Store in cool, dry conditions in well sealed containers. 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 section 7.

Control parameters Components with limit values that require monitoring at the workplace: 7440-06-4 Platinum (100.0%) PEL (USA) Long-term value: 0.002 mg/m³ soluble salts, as Pt Long-term value: 1* 0.002** mg/m³ REL (USA) *Metal **soluble salts, as Pt Long-term value: 1* 0.002** mg/m³ TLV (USA) *metal **soluble salts, as Pt Long-term value: 1* 0.002** mg/m³ EL (Canada) *metal;**soluble salts (as Pt): S EV (Canada) Long-term value: 1* 0.002** mg/m³ *metal; **water-soluble compounds (as Pt) (Contd. on page 3,

USA

Safety Data Sheet acc. to OSHA HCS

Printing date 01/22/2014

Reviewed on 10/03/2012

(Contd. of page 2)

Product name: Platinum foil

Additional information: No data

Exposure controls Personal protective equipment General protective and hygienic measures The usual precautionary measures for handling chemicals should be followed. Maintain an ergonomically appropriate working environment. Breathing equipment: Not required. Protection of hands: Not required. Eye protection: Safety glasses Body protection: Protective work clothing.

Information on basic physical and chemical properties	
General Information	
Appearance:	
Form:	Solid in various forms
Color:	Silvery-white
Odor: Odor threshold:	Odorless
Udor threshold:	Not determined.
pH-value:	Not applicable.
Change in condition	
Melting point/Melting range:	1768.4 °C (3215 °F)
Boiling point/Boiling range:	3825 °C (6917 °F)
Sublimation temperature / start:	Not determined
Flammability (solid, gaseous)	Not determined.
Ignition temperature:	Not determined
Decomposition temperature:	Not determined
Auto igniting:	Not determined.
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):	21.45 g/cm³ (179 lbs/gal)
Relative density	Not determined.
Vapor density	Not applicable.
Evaporation rate	Not applicable.
Solubility in / Miscibility with	
Water:	Not determined
Partition coefficient (n-octanol/water):	Not determined.
Viscosity:	
dynamic:	Not applicable.
kinematic:	Not applicable.

10 Stability and reactivity

Reactivity No information known. Chemical stability Stable under recommended storage conditions. Thermal decomposition / conditions to be avoided: Decomposition will not occur if used and stored according to specifications. Possibility of hazardous reactions No dangerous reactions known Hazardous decomposition products: Metal oxide fume

11 Toxicological information

Information on toxicological effects
Acute toxicity:
The Registry of Toxic Effects of Chemical Substances (RTECS) contains acute toxicity data for
components in this product.
LD/LC50 values that are relevant for classification: No data
Skin irritation or corrosion: Generally the product does not irritate the skin.
Eye irritation or corrosion: No irritant effect.
Sensitization: No sensitizing effects known.
Germ cell mutagenicity: No effects known.

(Contd. on page 4)

Safety Data Sheet

acc. to OSHA HCS

Printing date 01/22/2014

Reviewed on 10/03/2012

Product name: Platinum foil

(Contd. of page 3) Carcinogenicity: No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH. The Registry of Toxic Effects of Chemical Substances (RTECS) contains tumorigenic and/or carcinogenic and/or neoplastic data for this substance. Reproductive toxicity: No effects known. Specific target organ system toxicity - repeated exposure: No effects known. Specific target organ system toxicity - single exposure: No effects known. Aspiration hazard: No effects known. Additional toxicological information: To the best of our knowledge the acute and chronic toxicity of this substance is not fully known. 12 Ecological information Toxicity Aquatic toxicity: No further relevant information available. Persistence and degradability No further relevant information available. Behavior in environmental systems: Bioaccumulative potential No further relevant information available. Mobility in soil No further relevant information available. Additional ecological information: General notes: Do not allow material to be released to the environment without proper governmental permits. Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system. Avoid transfer into the environment. 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 Consult state, local or national regulations to ensure proper disposal. Uncleaned packagings: Recommendation: Disposal must be made according to official regulations.

14 Transport information

UN-Number DOT, ADR, ADN, IMDG, IATA	Not applicable
UN proper shipping name DOT, ADR, ADN, IMDG, IATA	Not applicable
Transport hazard class(es)	
DOT, ADR, ADN, IMDG, IATA Class	Not applicable
Packing group DOT, ADR, IMDG, IATA	Not applicable
Environmental hazards:	Not applicable.
Special precautions for user	Not applicable.
Transport in bulk according to Annex II o. MARPOL73/78 and the IBC Code	f Not applicable.
Transport/Additional information:	
DOT Marine Pollutant (DOT):	No
UN "Model Regulation":	-
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(Contd. on page 5)

USA

Safety Data Sheet acc. to OSHA HCS

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(Contd. of page 4)

15 Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture National regulations All components of this product are listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical substance Inventory. All components of this product are listed on the Canadian Domestic Substances List (DSL). SARA Section 313 (specific toxic chemical listings) Substance is not listed. California Proposition 65 Prop 65 - Chemicals known to cause cancer Substance is not listed. Prop 65 - Developmental toxicity Substance is not listed. Prop 65 - Developmental toxicity, female Substance is not listed. Prop 65 - Developmental toxicity, male Substance is not listed. Information about limitation of use: For use only by technically qualified individuals. Other regulations, limitations and prohibitive regulations Substances of very high concern (SVHC) according to REACH, Article 57 Substance is not listed. **REACH - Pre-registered substances** Substance is listed. Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

Department issuing SDS: Health, Safety and Environmental Department. Abbreviations and acronyms: RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail) ICAO: International Civil Aviation Organization ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) DOT: US Department of Transportation GHS: Globally Harmonized System of Classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) HMIS: Hazardous Materials Identification System (USA) WHMIS: Workplace Hazardous Materials Information System (Canada) LC50: Lethal concentration, 50 percent