

Safety Data Sheet

1. Identification

Product name	METASHINE 2025PSTM
Name of manufacture:	TOYO ALUMINIUM K.K.
Name of section	QUALITY ASSURANCE DEPT
Address	MIDOSUJI DAIWA BLDG, 6-8, KYUTAROMACHI 3-CHOME, CHUO-KU, OSAKA, 541-0056, JAPAN
Telephone number	81-745-69-3489
Fax number	81-745-69-6859
Emergency telephone number	81-745-69-3091(SHINJO works)
Recommended uses	Mixture of substances made of silver coated fine glass flake

Date of revision: June 1, 2015

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2. Hazard identification

·Hazard classification

Physical Hazards	Not applicable	
Health Hazards	Skin corrosion/irritation	Category 2
	Serious eye damage / eye irritation	Category 2B
	Skin sensitization	Category 1
	Specific target organ systemic toxicity (single)	Category 1 (respiratory organ)
	Specific target organ systemic toxicity (repeated)	Category 1 (eye, respiratory organ: inhalation) Category 2 (liver, testicle)
Environmental Hazards	Acute hazards to the aquatic environment	Category 2
	Chronic hazards to the aquatic environment	Category 2

Hazards that aren't written as the above are "Can't classify" or "Off the subject".

·GHS Label elements

Pictogram



Signal word

Danger

Hazard statement

H315 Causes skin irritation
H320 Causes eye irritation
H317 May cause an allergic skin reaction
H370 Causes damage to respiratory organ
H372 Causes damage to organs (eye, respiratory organ: inhalation) through prolonged or repeated exposure
H373 May cause damage to organs (liver, testicle) through prolonged or repeated exposure
H401 Toxic to aquatic life
H411 Toxic to aquatic life with long lasting effects

Precautionary statements

Obtain special instructions before use. (P201)

Prevention

Do not handle until all the safety precautions have been read and understood. (P202)
Keep away from ignition sources such as heat/sparks/open flame.-No smoking. (P210)
Ground/bond container and receiving equipment. (P240)

	Avoid breathing mist/vapour/spray. (P261)
	Wash the hands thoroughly after handling. (P264)
	Do not eat, drink or smoke when using this product. (P270)
	Use only outdoors or in a well-ventilated area. (P271)
	Avoid release to the environment. (P273)
	Wear protective gloves and eye/face protection. (P280)
	Wear designated personal protective equipment. (P281)
Response	IF INHALED: If you feel unwell, call a doctor. (P304+P312)
	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. (P304+P340)
	IF exposed or concerned get medical advice/attention. (P308+P313)
	If you feel unwell, get medical attention. (P314)
	In case of fire: Use appropriate extinguisher to extinguish. (P370+P378)
	Collect spillage. (P391)
Storage	Store in a well-ventilated place. (P403+P233)
	Store locked up. (P405)
Disposal	Commission the disposal to industrial waste disposer approved by regional governor. (P501)

3 .Composition/information on ingredients

Classification of the substance or mixture : Mixture

Chemical Name	Composition (%)	CAS No.
Glass oxide	50 ~ 66	65997-17-3
Silver	16 ~ 24	7440-22-4
Silicon dioxide	4 ~ 10	7631-86-9
Tin dioxide	Max 1	18282-10-5
Kerosine (Petroleum), Hydrodesulfurized	13 ~ 17	64742-81-0

4 .First-aid measures

Inhalation:	If inhaled vapor, remove person away from further exposure and call a physician immediately. When breathing is unsteadily or has stopped, start resuscitation by using oxygen if possible
Skin contact:	Remove contaminated clothing and wash skin with soap and water.
Eye contact:	Immediately flush eyes with plenty of water for more than 15 minutes and obtain medical attention.
Ingestion:	Remove the foreign objects from the mouth, and rinse mouth thoroughly with water. Do not induce vomiting. Call a physician immediately.

5 .Fire-fighting measures

Exinction method:	<ul style="list-style-type: none"> · Both dioxide gas and powder and fire extinguisher are good extinguishing media for glass flake. · Please use the suitable extinguishing media by condition.
Suitable extinguishing media:	<ul style="list-style-type: none"> · Powder, Carbon dioxide, Fiber glass cloth, Dry sand, and Mica powder

6 .Accidental release measures

Removal method:	<ul style="list-style-type: none"> · Remove all ignition sources. · If spilled from a container, wipe them off with cloth and store in an airtight container that doesn't adhere to water, acid, or alkali etc.
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7. Handling and storage

[Handling]

- Prevent from direct skin contact as much as possible and use organic gas protection mask, safety goggles, and safety glove as needed.
- Require the local exhaust ventilation in the working place.
- Ensure adequate ventilation for exhaust in the work place.

[Storage]

- Keep in sealed container indoors with humidity and temperature control (max 40), adequate ventilation and away from direct sunlight.
- Keep out of reach of children.

8. Exposure controls/personal protection

Administrative level, acceptable concentration limit

	Administrative level	Acceptable concentration limit	ACGIH
Glass oxide	-	8mg/m ³	TWA 10mg/m ³ , STEL -
Silver			TWA 0.1 mg/m ³ , STEL -
Kerosine (Petroleum), Hydrodesulfurized	-	-	TWA 525ppm, STEL -

Facilities Measures : Require the local exhaust ventilation in the working place.

Respiratory protection : Use dust-proof / gas mask.

Eye protection : Use safety goggles.

Hand protection : Use safety glove.

Skin protection : Use the closed clothes of wrist and ankle.

9. Physical and chemical properties

Appearance;	Silver–white solid (paste)
Odor;	Solvent-like
Odor threshold;	N.A.
pH;	No data
Melting point/freezing point;	N.A.
Initial boiling point and boiling range;	Refer to below table
Flash point;	Refer to below table
Evaporation rate;	N.A.
Flammability (solid);	N.A.
Upper/lower flammability or explosive limits;	Refer to below table
Vapor pressure;	Refer to below table
Vapor density;	N.A.
Relative density;	2.1 (calculated)
Solubility;	Insoluble
Partition coefficient: n-octanol/water;	N.A.
Auto-ignition temperature;	Refer to below table
Decomposition temperature;	N.A.
Viscosity;	N.A.

Components	Flash point (°C)	Ignition point (°C)	initial boiling point (°C)	Boiling point (°C)	Vapour pressure	Density	Explosion limit	
							Upper	Lower
Kerosine (Petroleum), Hydrodesulfurized	40 - 45	Ca. 245	130	130 - 200	Ca. 5mmHg (20°C)	3 - 4 (Air = 1)	4.9%	0.8%

10. STABILITY AND REACTIVITY

Stability: Stable in air or under light shielded condition.



11. TOXICOLOGICAL INFORMATION

Acute toxicity:	Acute toxicity estimate value is more than 5000mg/kg and classified as Classification not possible. Oral LD ₅₀ , Rat 5000mg/kg or more (Kerosine (Petroleum), Hydrodesulfurized)
Skin corrosion/irritation:	Category 2 is more than 10% and classified as Category 2.
Serious eye damage /eye irritation:	Category 2B is more than 10% and classified as Category 2B.
Skin sensitization:	Category 1 is more than 0.1% and classified as Category 1.
Specific target organ systemic toxicity (single exposure):	Category 1 (respiratory organ) is more than 1% and classified as Category 1 (respiratory organ).
Specific target organ systemic toxicity (repeated exposure):	Category 1 (eye, respiratory organ: inhalation) is more than 1% and classified as Category 1 (eye, respiratory organ: inhalation). Category 2 (liver, testis) is more than 1% and classified as Category 2 (liver, testis).

12. Ecological information

Environmental hazard (Acute):	Category 1 is less than 25% and classified as Category 2.
Environmental hazard (Chronic):	Category 1 is less than 25% and classified as Category 2.
Ecotoxicity:	Crustacea (Daphnia magna) 48hours LC50 0.42-2.3mg/L (Kerosine (Petroleum), Hydrodesulfurized)
Persistence and degradability:	No information at this point
Bioaccumulation:	No information at this point
Mobility in soil:	No information at this point
Other hazards:	No information at this point

13. Disposal considerations

Disposal:	Do not reuse empty package. Do not put sealed container in a flame. Do not weld or melt down. When dispose of waste product and empty container commission to legally approved industrial waste disposer.
Contaminated container and packing:	Confirm that there is not breakage, corrosion, leakage etc. of the package. Pile containers in a way that does not cause falling, tumbling or breakage. Put appropriate cover to avoid direct sunlight and penetration of rain. Transfer the container avoiding significant friction or shaking. Pack, label and transfer according to related regulations.

14. Transport information

Land Transportation:	Comply with regulations. When aluminum paste significantly leak and there is a risk of fire during transportation take precautionary measures to prevent the fire and inform nearest fire service station..
Marine transportation:	Comply with regulations.
Air transportation:	Comply with regulations.
International regulation:	UN class 9 UN number 3077 Proper shipping name: Environmentally hazardous substance, SOLID, N.O.S. (Glass oxide and Petroleum Mixture) Packing group: III
Marine Pollutant	Applicable

15. Regulatory information

Ensure this material is on compliance with federal requirements and ensure it is conformity to local regulations.

16. Other information

Reference documents Chemical Risk Information Platform, National Institute of Technology and Evaluation (NITE)
Material Safety Data sheet is to provide reference information to assure the safe handling of the product.
The descriptions herein are based on the currently available sources, information and data but no guarantee is given for its contents, physico-chemical properties, risk or hazard. The precautions herein are for normal handling. If you use this product under the special conditions, take safety measures appropriate for the special use and usage.