

Stanlux Flake: DEG 4010, DEG 4030, DEG 4035, DEG 4040, DEG 4050.

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1. IDENTIFICATION

Product identification: Aluminum powder

Other ways of identification: Stanlux Flake

Recommended uses of the chemical: Cellular concrete

Usage restrictions: There are no known restrictions on use.

Supplier Details:

Manufacturer: Aldoro Indústria de Pós e Pigmentos Metálicos Ltda
Av. Suécia, 570 – Distrito Industrial – Rio Claro – SP – Brasil
Tel: 19 3535.6400
www.aldoro.com.br

Emergency telephone number: Tel: 19 3535.6400

2. HAZARD IDENTIFICATION

Classification of the substance or mixture:

Specific organ toxicity – repeated exposure

Category 2

Classification system used

Standard ABNT-NBR 14725. Globally Harmonized System for Classification and Labeling of Chemicals, UN.

GHS labeling elements including precautionary statements

Pictograms



Signal word

WARNING

Danger phrases

H373 May cause kidney and liver damage through prolonged or repeated exposure.

Precautionary phrases

PREVENTION

P260 Do not breathe dust/fume/gas/mist/vapors/spray.

EMERGENCY RESPONSE

P314 Get medical advice/attention if you feel unwell.

STORAGE

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

DISPOSITION

P501 Dispose of contents and container in accordance with local regulations.

Other hazards not resulting in a classification: No further relevant information available.

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3. COMPOSITION AND INFORMATION ON INGREDIENTS

Mixture

Ingredients that contribute to the danger

Chemical identity	CAS number	Concentration range (%)
Aluminum powder	7429-90-5	68 - 72
Diethylene glycol	111-46-6	28 - 32

4. FIRST AID MEASURES

Description of first aid measures

Inhalation: Remove the victim to a ventilated area and keep him/her at rest in a position that does not hinder breathing. If he/she feels unwell, seek medical help.

Skin contact: Remove contaminated clothing. Wash skin with soap and running water. In case of skin irritation: Consult a physician.

Eye contact: Rinse cautiously with water for several minutes. Remove contact lenses if easy to do so. If eye irritation persists: Consult a physician.

Ingestion: Do not induce vomiting. Seek medical help.

Most important symptoms and effects, acute or delayed: No further relevant information available.

Indication of immediate medical attention and special treatments required, if necessary: No further relevant information available.

5. FIRE FIGHTING MEASURES

Extinguishing media

Meios de extinção apropriados: Chemical powder or dry sand.

Unsuitable extinguishing agents: Do not use water, foam or carbon dioxide.

Specific hazards arising from the mixture: Combustion can form irritating and toxic gases such.

Special protective measures for firefighting personnel: We recommend the use of respiratory protection equipment of the autonomous type, with positive pressure and full protection clothes.

6. CONTROL MEASURES FOR SPILLS OR LEAKS

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel:

Use individual protection equipment. Move away the persons from the affected area.

For emergency service personnel:

Use full PPE, including safety glasses, protective gloves, safety shoes and appropriate protective clothing.

Environmental precautions:

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Do not allow the product to reach sewage pipes or watercourses. Inform the authorities if the product reaches water resources.

Methods and materials for containment and cleaning:

Remove to a dry container. See section 13 for waste treatment methods.

7. HANDLING AND STORAGE

Appropriate technical measures for handling

Precautions for safe handling:

Handle in a covered, dry and ventilated place. Keep packaging closed when the product is not in use. Avoid inhaling product vapors. Use personal protective equipment as described in Section 8.

Hygiene measures:

Avoid contact with skin, eyes and clothing. Do not eat, drink or smoke in work areas. Wash hands after handling and before eating, drinking, smoking or using the bathroom.

Conditions for safe storage, including any incompatibilities

Technical measures for fire and explosion prevention:

Keep away from heat, sparks, open flames and hot surfaces. - Do not smoke. Keep container tightly closed.

Conditions for safe storage, including any incompatibilities:

Store in a covered, ventilated place protected from heat. Keep away from incompatible materials as described in Section 10.

Suitable packaging materials:

Similar to original packaging.

Unsuitable packaging materials:

Non-conductive materials.

8. EXPOSURE CONTROL AND PERSONAL PROTECTION

Control parameters

Occupational exposure limit:

Chemical Agent	Exposure Limits
Aluminum	ACGIH TLV (United States, 1/2023) TWA: 1 mg/m3 (Respirable fraction)

Engineering control measures: Use explosion-proof mechanical ventilation and exhaust systems to maintain atmospheric concentrations of product constituents below occupational exposure limits.

Personal protective measures

Eye/face protection: Safety glasses if there is a risk of splashing.

Skin protection: Impervious gloves. Recommended gloves: nitrile.

Respiratory protection: If personal exposure cannot be controlled below applicable limits by ventilation, use a respirator suitable for particulates, in accordance with the Respiratory Protection Program (PPR), Fundacentro.

Thermal hazards: No thermal hazards.

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9. PHYSICAL AND CHEMICAL PROPERTIES

* Refers to Diethylene glycol (DEG)

Physical state	Pasty solid
Color	Gray
Odor	Characteristic
Melting point/freezing point	* - 10.5 °C
Boiling point or initial boiling point and boiling range	* 245 °C
Flammability	Not applicable
Lower and upper explosive/flammability limits	* 1.8 % - 12.2 %
Flash point	* 143 °C
Autoignition temperature	* 230 °C
Decomposition temperature	Not available
pH	Not applicable
Kinematic viscosity	* 38 mPa.s (20 °C)
Solubility	Soluble in water
Partition coefficient – n-octanol/water (log value)	* Log Kow: - 1,47
Vapor pressure	* 0.0013 KPa a 20 °C
Density and/or relative density	0.8-1.2 (apparent)
Relative vapor density	* 3,66 (air=1)
Particle characteristics	Particles with a size of 15 to 52 microns. Malvern measuring instrument.

10. STABILITY AND REACTIVITY

Reactivity

Non-reactive under normal conditions of use, storage and transportation.

Chemical stability

Stable under normal temperature and pressure conditions.

Possibility of dangerous reactions

When in contact with Incompatible materials.

Conditions to avoid

Keep away from sources of ignition and incompatible materials.

Incompatible materials

Acids, alkali and oxidizing agents.

Hazardous decomposition products

Does not decompose at room temperature.

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11. TOXICOLOGICAL INFORMATION

Acute toxicity:	Based on the available data, the classification criteria are not met. Aluminum powder: Oral LD50 (rat): > 2000 mg/kg. Inhalation LC50 (rat): > 888 mg/m ³ . Inhalation NOAEC (rat): 10 mg/m ³ .
Skin corrosion/irritation:	The product is not expected to cause skin irritation.
Serious eye damage/eye irritation:	The product is not expected to cause eye irritation.
Respiratory or skin sensitization:	The product does not cause skin or respiratory sensitization.
Germ cell mutagenicity:	The product is not expected to be mutagenic.
Carcinogenicity:	The product is not classified as carcinogenic.
Reproductive toxicity:	The product is not expected to be toxic to reproduction.
Specific target organ toxicity – single exposure:	The product is not expected to be toxic to specific target organs from a single exposure.
Specific target organ toxicity – repeated exposure:	NOAEL, oral, rat: 100 mg/kg/day. NOAEL, dermal, dog: 2200 mg/kg/day. Effects: Renal toxicity.
Aspiration hazard:	Based on the available data, the classification criteria are not met.

12. ECOLOGICAL INFORMATION

Ecotoxicity

The product is not considered hazardous to the environment.

Persistence and degradability

Aluminum powder: Not considered biodegradable.

Diethylene glycol: Easily biodegradable (90% after 28 days).

Bioaccumulative potential

The product is not expected to have bioaccumulation potential.

Mobility in soil

The product is not expected to be mobile in soil.

Other adverse effects

No other additional information available.

13. CONSIDERATIONS ON FINAL DESTINATION

Recommended methods for final disposal:

Product and product waste are classified as hazardous and must be disposed of in accordance with federal, state and municipal legislation.

Contaminated packaging: The packaging should not be reused. Once decontaminated, it can be recycled.

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14. TRANSPORTATION INFORMATION

National and international regulations

Not classified as dangerous for transport.

15. REGULATORY INFORMATION

Federal Decree No. 10,088, of November 5, 2019.

Regulatory Standard No. 26 (Safety Signage and Identification), approved by MTP Ordinance No. 2,770 of September 5, 2022 of the Ministry of Labor and Social Security.

16. OTHER INFORMATION

Important information, but not specifically described in the previous sections

This document was prepared based on current knowledge about the appropriate handling of the product and under normal conditions of use, according to the application specified on the packaging. Any other form of use of the product that involves its combination with other materials, as well as forms of use other than those indicated, are the responsibility of the user. It is warned that the handling of any chemical substance requires prior knowledge of its dangers by the user. In the workplace, it is the responsibility of the company using the product to promote the training of its employees and contractors regarding the possible risks arising from exposure to the chemical product.

Change control:

Version	Date of preparation	Changes
01	2025/06/23	Preparation

Subtitles and abbreviations:

ACGIH - American Conference of Governmental Industrial Hygienists;

CAS - Chemical Abstracts Service (Registration number with the American Chemical Society);

LC₅₀ - Effective concentration or lethal concentration of the substance for 50% of individuals;

LD₅₀ - Dose capable of causing the death of 50% of animals;

NOAEC - No Observed Adverse Effect Level;

UN - United Nations;

TLV - Threshold Limit Value;

TWA - Time Weighted Average.

References:

ACGIH - AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS. TLVs® and BEIs®: Based on the Documentation of the Threshold Limit Values (TLVs®) for Chemical Substances and Physical Agents & Biological Exposure Indices (BEIs®). Cincinnati-USA, 2023.

BRAZIL. MINISTRY OF LABOR AND EMPLOYMENT (MTE). Regulatory Standard (NR) No. 15: Unhealthy activities and operations. Brasília, DF. Apr. 2022.

BRAZIL. MINISTRY OF LABOR AND EMPLOYMENT (MTE). Regulatory Standard (NR) No. 7: Occupational health medical control program. Brasília, DF. Jan. 2022.

GESTIS - SUBSTANCE DATABASE. Available at: <<https://gestis-database.dguv.de/>>. Accessed: Jun 2025.

GHS - GLOBALLY HARMONIZED SYSTEM OF CLASSIFICATION AND LABELLING OF CHEMICALS. 10th rev. ed. New York and Geneva: United Nations, 2023.