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

1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Identification of the product

Stanlux Flake

1.2 Main recommended uses

Cellular concrete

1.3 Company's identification

Manufacturer: Aldoro Indústria de Pós e Pigmentos Metálicos Ltda.
Av. Suécia, 570 – Distrito Industrial – Rio Claro – SP – BRAZIL
Phone: 19 3535.6400
Fax: 19 3527.0330
E-mail: aldoro@aldoro.com.br

1.4 Emergency Phone

Tel: 19 3535.6400

2. HAZARDS IDENTIFICATION

2.1 Classification of the mixture, following the ABNT NBR 14725-2:2019 standard.

Toxicity for specific organisms-targets – repeated exposure Category 2

2.2 Labeling elements, as per the GHS

Hazard pictograms



Signal word

Warning

Hazard Statements

H302 - May cause damage to organs through prolonged or repeated exposure.
Lit organs: rinse.
Route of exposure: oral

Precautionary statements

P261 Avoid inhaling dusts, smokes, gases, mists, vapors and aerosols.
P280 Use protection gloves, protection clothes, eye protection and face protection equipment.
P370 + P378 In case of fire: For firefighting use carbon dioxide, chemical power or sand. Never use water.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P501 Dispose the content and the container in a duly regulated and licensed place, as per the Federal, State and Municipal Legislations.

2.3 Other hazards

There is no other important information available.

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3. COMPOSITION AND INFORMATION ON THE INGREDIENTS

3.1 Characterization of the product

Mixture

3.2 Ingredients

Common, technical chemical name	CAS Number	Concentration range (%)
Aluminium powder	7429-90-5	68 - 72
Diethylene glycol	111-46-6	28 - 32

4. FIRST AID MEASURES

4.1 Description of the first aid actions

Inhalation: Remove the victim from the contaminated area. In case of respiratory arrest, administer artificial respiration. Provide medical attention.

Skin contact: Take the contaminated clothes off. Wash the skin with plenty of water and soap. In case of skin irritation: See a doctor.

Contact with the eyes: Wash immediately with current water for 15 minutes (at least). See a doctor if the irritation persists.

Ingestion: Do not induce vomiting. Look for a medical help.

4.2 Most important, serious or late effects and symptoms: Exposure to vapors concentrations above the recommended exposure levels may cause problems in the central nervous system with head ache, nausea, dizziness, mental disorder, loss of conscience and sleepiness; eye and respiratory track irritation.

4.3 Indications on urgent medical care and necessary special treatments: No other relevant information available.

5. FIRE FIGHTING MEASURES

5.1 Fire extinguishing means

Most suitable fire extinguishing means: Carbon dioxide, chemical powder or dry sand. Use initially carbon dioxide or chemical powder. If aluminium particles (pyrophoric metal) ignite, sand should be used to cover the product surface. The burnt material should only be removed after completely cool.

Not appropriate fire extinguishing means: Do not use water or foam.

5.2 Specific hazards of the mixture: The material may liberate vapors that will form rapidly flammable mixtures. The building up of vapors may light up and/or explode in case of ignition.

5.3 Protection means of the fire fighting team: We recommend the use of respiratory protection equipment of the autonomous type, with positive pressure and full protection clothes.

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6. CONTROL MEASURES FOR SPILLING OR LEAKING

6.1 Personnel precautions, protection equipment and emergency procedures.

Use individual protection equipment. Move away the persons from the affected area. Eliminate fire and explosion risks removing or deactivating possible sources of ignition.

6.2 Environment precautions

Do not allow the product to reach the sewer system or any water streams. Inform the authorities if the product reaches water resources.

6.3 Methods and materials for containment and cleaning

Cover the product with inert and absorbing material (sand or sawdust) and remove to a dry container. Do not use water or other aqueous products. The residues shall be disposed as per the federal, state or local regulations.

6.4 References to other sections

See Section 7 for information on the safe handling. See Section 8 for information on individual protection equipment. See Section 13 for information on the disposal.

7. HANDLING AND STORAGE

7.1 Precautions for a safe handling

Handle in a covered, dry and ventilated place. It may be necessary mechanical ventilation and local exhaust. Keep the containers closed when the product is not being used. Avoid exposure to product vapors. Use individual protection equipment as described in Section 8.

Avoid skin, eye and clothes contact. Wash your hands after handling and before eating, drinking, smoking or using the restroom.

The facilities and the equipment shall be duly grounded to avoid building up of static charge. All electric equipment used shall be explosion proof. Do not smoke.

7.2 Safe storage conditions, including any incompatibility

Store in a covered, dry and ventilated place. Keep away from ignition sources. This product may react dangerously with incompatible materials, as described in Section 10.

8. EXPOSURE CONTROL AND PERSONAL PROTECTION

8.1 Control parameters:

Limits of occupational exposure:

Chemical Agent	LT NR 15 – Annex 11		TWA (ACGIH)	
	ppm	mg/m ³	ppm	mg/m ³
Aluminium				1 (*)
Diethylene glycol				

(*) breathable dust

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8.2 Measures for engineering control: Use explosion proof mechanical ventilation and exhaustion systems, to maintain the atmospheric concentrations of the constituents of the product, below the occupational exposure limits.

General measures of hygiene and protection: Avoid contact with skin, eyes and clothes. Use good hygiene practices. Wash your hands before coffee breaks and at the end of the day, and before eating, drinking, smoking or when using the rest room. Keep the emergency eye washing equipment and shower close to the working area.

8.3 Measures of personal protection: The selection of individual protection equipment changes in accordance to the exposure conditions and to the application, handling, concentration and ventilation practices. Data on the selection of protection equipment when using this material are supplied below, and are based on the normal use thereof.

Eye protection: Safety goggles with lateral protection.

Skin and body protection: Waterproof gloves or protection creams.

Respiratory protection: Mask with filter to protect against organic vapors.

Thermal hazards: Not applicable under normal use conditions.

9. PHYSICAL AND CHEMICAL PROPERTIES

* Relative to diethylene glycol (DEG)

9.1 Data on the basic physical and chemical properties.

Physical state	Paste solid
Color	Golden
Odor	Characteristic
pH	Not applicable
Melting point (°C)	* -10,5
Boiling point / range (°C)	* 245
Flash point (°C)	* 143
Evaporation rate (butyl acetate = 1)	* < 0,1
Flammability (solid; gas)	Not classified as flammable solid
Lower/upper limit of explosiveness (%)	* 1,8-12,2
Vapor pressure (kPa at 38°C)	* No disponible
Vapor density (air=1)	* 3,66
Density	0,8-1,2 (aparente)
Solubility in water (% mass)	* Soluble
Partition coefficient – n-octanol/water	* -1,47
Auto-ignition temperature (°C)	* 230
Decomposition temperature (°C)	* No disponible
Viscosity	No aplicable

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10. STABILITY AND REACTIVITY

10.1 Reactivity

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

10.2 Chemical stability

Stable under normal conditions of temperature and pressure.

10.3 Possibility of dangerous reactions

When in contact with water it may liberate hydrogen gas, which is highly flammable.

10.4 Conditions to be avoided

Keep away from heat and ignition sources and of incompatible substances.

10.5 Incompatible materials

Acids, alkali, oxidizing agents and water.

10.6 Dangerous products derived from the decomposition

Does not decompose at room temperature.

11. TOXICOLOGICAL INFORMATION

Relative to: * Aluminium powder **diethylene glycol (DEG)

Acute toxicity:

* Classification criteria are not met based on available data.
** Oral LD50 (rat) 12565 mg/kg. Dermal LD50 (rabbit) 11890 mg/kg.

Skin corrosion/irritation:

* Non-corrosive.
** Mild irritant (500 mg, 24h, rabbit).

Serious eye injuries/eye irritation:

* May cause mechanical irritation.
** Mild irritant (50 mg, 24h, rabbit).

Respiratory or skin sensitization:

* Not a respiratory sensitizer. Does not cause skin sensitization.
** Not a skin sensitizer for guinea pigs.

Mutagenicity in germination cells:

* Classification criteria are not met based on available data.
** Negative for:
In vitro: Ames test, sister chromatid exchange assay (Chinese hamster ovary), chromosomal aberration test (Chinese hamster ovary).
In vivo: Micronuclei (mouse).

Carcinogenicity:

* Not classified as a carcinogen.
** Diethylene glycol is not believed to be carcinogenic in humans. Animal studies have not shown evidence of carcinogenic effects. Studies in rats have shown that the product can cause damage to the kidneys, liver and gastrointestinal system. The presence of calcium oxalate crystals in the renal system of animals was also observed.

Toxicity to reproduction:

* Not classified as toxic to reproduction.
** NOAEL, oral, mouse: 2200 mg/kg/day (reproductive toxicity).
NOAEL, oral, mouse: 1000 mg/kg/day (maternal toxicity, embryotoxicity, fetotoxicity).

Toxicity for specific organs-targets – single exposure:

* Classification criteria are not met based on available data.
** Not available.

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**Toxicity for specific organs-
targets – repeated exposure:**

* Classification criteria are not met based on available data.
** NOAEL, oral, rat: 100 mg/kg/day.
NOAEL, dermal, dog: 2200 mg/kg/day.
Effects: renal toxicity.

Aspiration danger:

The aspiration of small amounts into the lungs, through ingestion or vomit, may cause chemical pneumonia or lung edema.

12. ECOLOGICAL INFORMATION

12.1 Ecotoxicidade

Aluminium powder: not classified as dangerous to environment..

Diethylene glycol: Fish:

LC50, 96h, Pimephales promises: 75200 mg/L [continuous-flow].

LC50, 24h, Carassius auratus: > 5000 mg/L.

Invertebrate:

EC50, 48h, Daphnia magna: 84000 mg/L.

Seaweed:

LOEC, Microcystis aeruginosa: 1700 mg/L.

12.2 Persistencia y capacidad de degradación

Aluminium powder: It is not considered biodegradable.

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

12.3 Potencial bioacumulativo

Not expected to bioaccumulate in the environment.

12.4 Movilidad no solo:

Aluminium powder: It is expected to have low mobility.

Diethylene glycol: High mobility in soil is expected (Log Koc: 0)

12.5 Other adverse effects:

No other relevant information available.

13. CONSIDERATIONS ON THE FINAL DISPOSAL

13.1 Recommended methods for the final disposal:

Residues should be disposed for proper treatment, following its characteristics (such as, coprocessing and incineration) and following the present applicable laws and regulations. Do not dispose in the sewer system, in rivers, lakes and water sources.

Contaminated packaging: The packaging material should not be reused. When decontaminated, it may be destined to recycling.

14. TRANSPORT INFORMATION

Not classified as dangerous for transportation.



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15. REGULATORY INFORMATION

Federal Decree Nr. 2.657, of July 3rd, 1998 (Promulgates the Nr. 170 OIT Convention, relative to Safety in the Use of Chemical Products at Work).

Law Nr. 12.305, of August 2nd, 2010 (Establishes the National Policy for Solid Wastes).

Decree Nr. 7.404, of December 23rd, 2010 (Regulates Law Nr. 12.305, of August 2nd, 2010).

Ministerial Decree Nr. 229, of May de 24th, 2011 – Amends the Nr. 26 Regulating Standard.

16. OTHER INFORMATION

This MSDS was written based upon the data of our suppliers of raw-materials and upon the present knowledge on the proper handling of the product under normal use conditions, following the application mentioned in section 1. Any other form of use of the product that involves its combination with other materials, besides forms of use different from the mentioned ones will be the responsibility of the user. We hereby warn that the handling of any chemical substance requires the previous knowledge of its danger by the user. The user company is responsible to provide, at the work place, the training of its employees and other persons in respect to the possible risks derived from the exposure to the chemical product.

Captions and acronyms:

ACGIH – American Conference of Governmental Industrial Hygienists.

CAS – Chemical Abstracts Service.

LC₅₀ – Lethal Concentration is the amount of a substance suspended in the air required to kills 50% of a test animals during a predetermined observation period.

LD₅₀ - Lethal Dose is the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals.

GHS – Globally Harmonized System of Classification and Labelling of Chemicals.

LT – Limite de Tolerância (Tolerance Limit) - Brazilian regulations.

NR – Norma Regulamentadora (Regulating Standard) - Brazilian regulations.

TWA – Time Weighted Average