SURFACTAN

Date: 08.09.16

Commercial name: **BISMUTH SUBNITRATE**

1 Identification of the substance / preparation and of the company / undertaking

1.1 Product information

Name: BISMUTH SUBNITRATE

Synonyms: ---1.2 Use: API

1.3 Company: SURFACTAN SA.

Malvinas Argentinas 4495 (B 1644 CAQ). Victoria, Buenos Aires, Argentina

Tel.: (5411) 4714-4085 / 4202/4097 (9 a.m. to 5:00 p.m.)

Fax: (5411) 4714-3821

2.1 Classification

| Oxidizing solids | Category 2 | (H272) |
|--|------------|--------|
| Skin corrosion/irritation | Category 2 | (H315) |
| Serious eye damage/eye irritation | Category 2 | (H319) |
| Specific target organ toxicity (single exposure) | Category 3 | (H335) |

2.2- Labeling elements according to SGA:



Warning: Danger

| Phrase: May intensify fire, oxidizer | (H272) |
|--|--------|
| Phrase: Causes skin irritation | (H315) |
| Phrase: Causes serious eye irritation | (H319) |
| Phrase: May cause respiratory irritation | (H355) |

Precautionary statements:

Prevention:

P210 Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking.

P220 Keep away from clothing and other combustible materials.

P261 Avoid breathing dust.

P264 Wash hands thoroughly after handling.

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

P280 Wear protective gloves/protective clothing/eye protection/face protection.

Intervention:

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

P321 Specific treatment: See section 4 in this SDS.

P304+P340

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

P312 Call a POISON CENTER/doctor if you feel unwell.

P332+P313 If skin irritation occurs: Get medical advice/attention.

P337+P313 If eye irritation persists: Get medical advice/attention.

P362+P364 Take off contaminated clothing and wash it before reuse.

P370+P378 In case of fire: Use dry powder, foam, water spray or CO₂ to extinguish.

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Storage:

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

P405 Store locked up.

Elimination:

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

2.3 - Other hazards: No information available.

3- Composition / Information on ingredients

3.1 Description: Bismuth oxynitrate

3.2 Hazardous substances contained:

Designation CAS % Percentage

Bismuth Subnitrate 1304-85-4 100

4 First aid measures

4.1 General information: In case of persistent discomfort, consult a doctor.

- **4.2 Skin contact:** Immediately remove all contaminated clothing. Wash with plenty of water and then soap. Get medical attention if irritation develops.
- **4.3 Eye Contact:** Rinse cautiously with water for several minutes. Remove contact lenses when present and easy to do. Continue washing. Requesting medical attention
- **4.4 Inhalation:** Remove person to fresh air and keep in a comfortable position for breathing. Seek medical attention.
- **4.5 Ingestion:** Rinse mouth. Do not induce vomiting. Seek medical attention.

5 Fire-fighting measures

- 5.1 Suitable extinguishing agents Powder, foam, CO₂. Water spray
- 5.2 Not suitable: Water jet.
- **5.3 Protective equipment:** Protective clothing for firefighting. Respiratory system.
- **5.4 Other notes:** The usual measures for working with chemicals. Thermal decomposition generates carbon bismuth oxides. Keep containers cool by spraying with water.

6 Measures to be taken in case of accidental discharge

- **6.1 Protective measures regarding persons:** Wear protective clothing and provide good ventilation. See instructions in section 8.
- 6.2 Protective measures for the environment: Avoid the entry into drains or soil.
- **6.3 Procedure for cleaning / collecting:** Collect mechanically, by sweeping or vacuuming.

Recover or dispose of according to current regulations. Clean the spill zone with water. Contaminated water should be kept in suitable and properly labeled containers and not allowed to flow into the ground or into surface water.

7 Handling and storage

- **7.1 Instructions on safe handling:** Take normal precautions for working with chemicals in solid form, provide general ventilation equipment and eye wash stations. Avoid generating dust clouds of the product.
- **7.2 Information about protection against explosions and fires:** Oxidizing, protect from ignition sources and electrostatic discharges.
- **7.3 Storage:** Store at temperatures between 10 ° and 35 ° C. Keep containers tightly closed and sealed. Do not expose to moisture.
- **7.4 Instructions for Combined Storage:** Do not store with organic substances.

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8 Exposure controls / personal protection

8.1 General safety and hygiene: Adequate extraction or ventilation. Regular safety measures for the handling of chemicals in fine powder form must be observed.

8.2 Special warnings on danger to persons and the environment:

Exposure limits: No information available 8.3 Personal protective equipment:

Respiratory protection: Respiratory mask in case of dust clouds formation or insufficient ventilation. **Skin Protection:** Use gloves impervious to this material. Wear clean clothing that covers the entire body.

Wash thoroughly with soap and water after work and before eating, drinking or smoking.

Eye / Face protection: Use safety glasses with side shields or face mask.

9 Propiedades físicas y químicas

a) Appearance: Solid. (White to off-white powder)

b) Smell: Odorless

c) Odor threshold: No information available

d) pH (as is): No information availablee) Melting/freezing point: Not applicable

f) Starting point and boiling range: Not applicable

g) Flash point: No information availableh) Evaporation rate: Not applicable

i) Inflamability: No information available

j) Upper / lower flammability limit: No information available

k) Vapour pressure: Not applicable
l) Vapour density: Not applicable
m) Density: Approximately 4,9 g/cm³
n) Solubility: Water: not soluble

o) Partition coefficient n-octanol / water: No information available
p) Spontaneous ignition temperature: No information available

q) Decomposition temperature: No information available

r) Viscosity: Not applicable

10 Stability and reactivity

10.1 Reactivity: Not reactive under appropriate conditions of handling and storage.

10.2 Chemical stability: The product is stable under proper storage conditions.

10.3 Possibility of hazardous reactions: No information available

10.4 Conditions to avoid: Heat, flames, ignition sources and incompatibles.

10.5 Incompatible materials: Alkaline bicarbonates, soluble iodides, gallic acid, calomel, salicylic acid, tannin, sulfur.

10.6 Dangerous products of combustion or decomposition: Bismuth oxide and/or fumes. Nitrogen oxides may form when heated to decomposition.

11 Toxicological information (1)

a) Acute toxicity: No information available

b) Skin corrosion / irritation: Produces skin irritation

c) Serious eye damage / eye irritation: Causes serious eye irritation.

d) Respiratory or skin sensitization: Not classified

e) Germ cell mutagenesis: Not classified

f) Carcinogenicity: Not classified

g) Reproductive toxicity: Not classified

h) Specific target organ toxicity-Single exposure: May cause respiratory irritation.

i) Specific target organ toxicity - Repeated exposure: No information available

j) Aspiration hazard: Not classified

k) Exposure effects:

Skin / eye exposure: Causes serious eye and skin irritation.

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Ingestion: May cause nausea, diarrhea. Due to the presence of dark line on gums, chronic bismuth toxicity may complicate the diagnosis of chronic lead toxicity.

Inhalation: May cause irritation of the respiratory tract or mucous membranes in case of dust inhalation.

(1) Based on information on product components. Sources consulted: U.S. National Library of Medicine, TOXNET, databases: HSDB: Hazardous Substances Data Bank. Supplier Technical Information. IARC: International Agency for Research on Cancer

12 Ecological information

a) Toxicity: Not classified.

b) Persistence and degradability: No information available. c) Bioaccumulation Potential: No information available

d) Mobility in soil: No information available

e) Other adverse effects: No information available

Additional ecological information: Do not discharge into drains or surface waters.

13 Disposal Considerations

- 13.1 Recommendation: Must not be disposed with household waste, recycle or dispose of in accordance with local regulations (eg approved plant incineration).
- **13.2 Dirty containers:** They should be treated as the contents.
- 13.3 Recommended cleaning medium: Water. Cleaning water must be treated in accordance with current regulations.

14 Transport information (land, sea and air)

Land transport (MERCOSUR // S.O.P.T.R.A. Dec. 195/97 R.A.):

UN Number: 1477 **Class:** 5.1

Packing group: II Intervention sheet N ° 140

Proper Shipping Name: Nitrates, Inorganic, n.o.s.

Shipping: IMDG

UN Number: 1477 **Class:** 5.1 Proper Shipping Name: Nitrates, Inorganic, n.o.s.

Air transport: ICAO / IATA

UN Number: 1477

Proper Shipping Name: Nitrates, Inorganic, n.o.s.

15 Regulatory information

This SDS meets the requirements of SRT Res. 801/15

Product residues should be disposed of according to the applicable hazardous waste legislation.

16 Other information

The data, information and instructions transcribed are merely complementary and are included representing the knowledge of the company on the subject to the day of its printing, which does not imply that they are conclusive on the subject. Compliance with the instructions does not exempt those who transport, manipulate or use the products from liability for their activities; So no guarantee is given on the results of applying such data and information. The company is not responsible for any damages that may arise from the misuse of instructions, information and transcribed data, as well as situations that are not contemplated herein, or that are generated by third parties, in combination with other products of others Or not to transportation, or for other types of circumstances.

Toxicology Centers in Buenos Aires:

Unit Toxicology, Hospital Fernández: Cerviño 3356 - Capital Federal 011-4801-7767 (attention and consultations TE)

Poison Center, Hospital Posadas: Illia and Marconi - Haedo - 011- 4654-6648 / 4658-7777 (Attention and

Sector issuing the data sheet: Technical office SURFACTAN S.A.