SELENIZZA THE GREEN BITUMEN

Selenizza® SLN
Version 6.1
Date: 10/02/2020
Cancels and replaces MSDS of: 10/01/2019

SAFETY DATA SHEET

Conform with the EU Directive 2001/58/EC

1. Identification of the product and the supplier

Product name:	***SELENIZZA®* SLN**
Commercial use:	Naturally occurring black asphaltite hydrocarbon intended for industrial use as road construction additive.

HS Code of the product: **27149000**
CAS number **12002-43-6**

Producer:

SELENICE BITUMI SHA
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Exempt from REACH Registration

Minerals are exempted from registration, if they meet the definition of a substance which occurs in nature (Article 3(39) of REACH) and if they are not chemically modified (Article 3(40) of REACH). This applies to minerals whose chemical structure remains unchanged, even if it has undergone a chemical process or treatment, or a physical mineralogical transformation, for instance to remove impurities

"Guidance for identification and naming of substances under REACH and CLP" (7.5 Minerals, page 74)

https://echa.europa.eu/documents/10162/23036412/substance_id_en.pdf/ee696bad-49f6-4fec-b8b7-2c3706113c7d

Bitumen or asphaltic like materials produced from natural deposits such as Trinidad Lake Asphalt and Gilsonite, differ in composition from crude oil and hence are not included in this category

CONCAWE "Category Justification for Petroleum Substances" (Category Domains, Version 1.1, 13 October 2010, pg. 21)

As the natural asphaltites are neither derived from chemical transformation procedures, nor obtained from synthetic origin products, they are not subject to the REACH regulation.

ICMQ
Certificate of conformity
N° 0010/15/ISP

2 Composition / information on the components.

Description: Naturally occurring black asphaltite hydrocarbon

Supplementary information:
Considered as a substance, it is a mixture of hydrocarbon components of high molecular mass deriving from natural geological transformation of the raw asphaltite, extracted from the deposit of Selenica in Albania, and consisting of paraffinic, naphthenic, and aromatic nature products and containing a percentage of mineral fines. The asphaltite, more commonly known by its generic name of natural bitumen of Albania and by using the mark SELENIZZA®, results from a purification under heat technique aiming to reduce the volatile particles and the sterile contained in the raw ore.

It may contain sulfur and hydrogen sulfide (H_2S) derivatives, H_2S being an extremely toxic gas, organic acids and polycyclic aromatic hydrocarbons (PAHs), which contents are in the few part-per-million range (ppm) and which levels are generally lower than those of petroleum bitumen

Dangerous components: None in our current knowledge, in normal condition of use

3 Hazard identification.

Harmful health effects:
The natural oxidized asphalt, solid material in ambient temperature, does not constitute any danger for intoxication and is not considered as being dangerous for the health. The powder inhalation does not produce any known damage to the health but should be avoided by using individual protection equipments (mask).
The asphaltite causes no damages other than those related to its high temperature manipulation in liquid state (around 160°C). The contact with hot oxidized asphalt may produce serious skin and eye thermal burns.
Although the usual temperatures of the asphaltite utilization are lower than 200°C, it is important to emphasize that, in a limited space, in high temperatures (> 200°C), sometime vapors accumulation may occur. Normally, their presence is not considered as generating significant health risks for the workers, but it is suggested its careful operation by insuring the ventilation of the workplaces.
Hydrogen sulfide may be accumulated in the stocking tanks containing asphaltite or asphalite mixtures, producing a potentially risky concentration

Environmental hazards: None in normal condition of use, in our current knowledge

Physical or chemical hazards:
In room temperature, the explosion risk of flammable hydrocarbon product, may be limited by suitably ventilation of storing and working areas.
In high temperatures, there exists a particular risk of inflammation or explosion, in certain conditions Where the asphaltite is over heated, it is necessary to make sure that the workplaces are correctly ventilated and if necessary, it is recommended to wear adapted individual protection clothes.

Specific risks:
During its utilization in hot temperatures, there exist some particular risks of burning, projections, explosion, or inhalation of the vapors within a confined area. The prolonged and repeated exposure to asphaltite or its fumes may present irritating characteristics for the skin and the respiratory tract.

4 Emergency first aid actions:

IN ALL CASES OF BURNING OR VAPOR OR FUMES INHALATION IMMEDIATELY CALL TEMMERGENCY MEDICAL AID AND ENSURE THE RESCUER SAFETY AND PROTECTION (see below)

Inhalation (first aid):
In case of exposure to large amounts of dust in ambient temperatures, or vapors or fumes during operation in high temperatures, transfer the person in fresh air and keep him warm and at rest (especially protecting him from the risk of hydrocarbon narcosis and/or hydrogen sulfide intoxication). In case of respiratory difficulties use efficient respiratory assistance

Contact with the skin (first aid):
In case of skin contact with the dust in ambient temperature, wash with water and soap. Rinse abundantly. Clean the contaminated clothes
In case of projection and burnings, during high temperature operations, IMMEDIATELY COOL DOWN AND QUICKLY WASH USING A LARGE AMOUNT OF WATER AND URGENTLY TRANSPORT IN HOSPITAL. DO NOT TRY TO REMOVE THE HOT ASPHALTITE ATTACHED TO THE SKIN. Remove all contaminated or splashed clothes, if not attached to the skin.

Contact with the eyes (first aid):
In case of contact of the asphaltite dust with the eyes in ambient temperature or in case of projection of the hot product, immediately rinse or cool down using large amount of water, by drawing aside the eyelids during 5 to 20 minutes and urgently transport in a specialized hospital.

Protection of the rescuers:
Obligatory use of individual respiratory protection equipment in case of intervention in a confined space during the utilization of the hot product.

5 Fire control proceeding

Flashing point : > 296 °C conform to NF EN ISO 2592.

Appropriate means of fire extinction: Foam, CO2, powder, sand.

Not recommended means of fire extinction: NEVER USE WATERJET.

Specific hazards:
The addition of water on hot asphaltite may produce overflowing of the tank and violent projection of hot asphaltite.
Incomplete combustion and the asphaltite thermolysis may induce to more or less toxic gas production, such as CO, CO2, various hydrocarbons, etc, and that of soot as well. The inhalation of these gasses can be very dangerous.

Protection of the caregiver :
It is obligatory to use in confined atmosphere, a personnel protective respiratory equipment in order to prevent the effects of abundant gas and fumes emissions, resulting from the incomplete combustion.

6 Measures to take in case of accidental dispersion

Personal precautions:
Depending on manner of utilization, solid form in room temperature or liquid form in hot temperatures, it is obligatory to carry a helmet with face screen and neck protection, gloves, coverall and treasures (with the treasures outside), made from non-fusing and fire resistant fabric.

Precautions for environmental protection:
Contain the product by any appropriated means depending on its physical state (solid powder or hot liquid). Recovery: absorb using earth or inert materials (in case of hot temperatures use, leave the product until it reaches the solid state). Collect the product and all the contaminated parts and stock them in hermetic containers.

Elimination: Recovery or handing over to an approved eliminator in accordance to local regulations

7 Handling and Storage

Technical proceedings: in general, ensure the availability of cooling and anti fire means of protection in proximity.
Particularly, during the use of the hot product, avoid the direct flames, do not perforate, mill, or sold any cistern or tubing without previous gas extraction.
Workers exposure prevention: in powder state at the room air temperature: before any operation, make sure to use personal protection clothes, helmet, gloves and glasses, and anti dust mask.
During the utilization of the hot product, maintain the asphaltite temperature as low as possible in order to minimize the fumes emission. Before any removal of the product and relatively to risk exposition, use a helmet with face screen and neck protection, gloves and coverall and safety boots (with the treasures outside), made from non-fusing and fire-resistant fabric
Avoid dust, fumes and haze inhalation while using the heated product.
Do not eat, drink and smoke during product manipulation or utilization.
Fire and explosion prevention: in powder state at room air temperature: handle and store the product far away from any flame or high temperature points.
During the utilization of the hot product, handle and store the product at the lowest possible temperature, at approximately, 100°C above the temperature of the softening point, and generally not higher than 200-210°C. NEVER HEAT A TANK OR A CISTERNE IF THE HEATING ELEMENTS ARE NOT WIDELY COVERED (MINIMUM 15 cm).
Do not heat the pumps or the lines with a naked flame
Hydrogen sulfide can accumulate in the tanks under prolonged high temperatures

Utilization advice: avoid the contact with strong oxidant agents
Use only containers, joints, lines… which resist to hot asphaltite.

Prevention: make sure that prevention measures from any water infiltration in the containers, cisterns, flexible lines…, are taken.

Incompatible maters: potentially dangerous reaction with strong oxidant agents

Recommended packaging matters: steel, stainless steel
Use only containers, joints, lines…. which are resistant to hot asphaltite.

8 Control of exposure/personal protection

Control parameters; limit values of exposure:

Concerning the asphaltite dust (storage and handling in room temperature):

- none in France
- in case of lack of regulation on exposure limits, the use of an VME Average Value (over 8h hours of exposition) of 5 mg/m3 in Total Particulate Matter is recommended.

Concerning the asphaltite fumes (handling and use in room temperature):
- none in France
- in case of lack of regulation on exposure limits, the use of an VME of 5 mg/m3 in TPM is recommended

CONCERNING THE HYDROGEN SULPHIDE FUMES:
- in France, the standard value of VME is 7 mg/m3 (or 5 ppm) and that of VLE (minimal value over 15 minutes) of 14 mg/m3 (or 10 ppm).

Personal protection equipments:

Respiratory protection: wear anti dust mask when handling asphaltite powder and in case of operation in confined area, the use of personal respiratory protection equipment, is obligatory

Hand protection: waterproof gloves, non-fusing and fire resistant

Eyes protection: when handling heated product, use helmet with face screen and neck protection

Skin and body protection (excepting the hands): when handling heated product, use a helmet with face screen and neck protection, coverall and safety boots (treasures outside), made of non-fusing and fire-resistant fabrics.

Sanitary measures: adopt strict sanitary measures to protect the staff exposed to the risk of contacting the dust of asphaltite powder, or the hot asphaltite and its fumes. Do the same with the staff charged with cleaning operations of the asphaltite contaminated material, in order to especially avoid the skin contact with the solvent-diluted asphaltite.
In case of minimal contamination of the skin, wash abundantly with water and soap or remove the asphaltite using vegetable oil, white oil, tepid paraffin, or a special recommended soap.

NEVER USE AN ABRASIF PRODUCT, NOR A SOLVANT OR A FUEL.

Clean the clothes or the protection coveralls at least once a week and replace them if necessary.

9 Physical & chemical properties

Physical state:	Solid at room temperature
Color:	Black or brown black
Odor:	Characteristic odor of asphaltite
Oxidizing property:	Non applicable
PH :	Non applicable.
Softening point:	115 - 120°C according to NF EN 1427
Flashing point:	> 296 °C according to the norm NF EN ISO 2592
Explosion characteristics:	The overheated asphaltite can liberate flammable fumes which can form, in certain conditions, explosive gas mixes.
Vapor pressure:	negligible at usual temperatures
Specific mass:	the applicable method consists in calculating the relative density, namely: about 1.16 at 25°C depending on the class Ia (norm NF EN ISO 3838)
Solubility in water:	Insoluble and non miscible.
Solubility in organic solvents:	soluble in many usual solvents.
Solubility in greasy substance:	partially soluble.
N-octanol/water partition Coefficient:	Log Pow > 6
Other data:	
* Fire point:	> 300°C according to the norm NF EN ISO 2592.
* Penetration:	max 2 dmm according to the norm NF EN 1426
* Distillation Characteristic:	initial distillation point: > 250°C (ASTM 2887).
* Electrical conductivity:	insulator.
* Hygroscopicity:	non hygroscopic

10 Stability and Reactivity

Stability: stable product in bloc, powder, or pellet form, at room and usual temperatures of storage, handling and employment.

Using terms and conditions to avoid: overheating the product, sparks, ignition points, flames and static electricity

Matters to avoid: oxidizing agents and water in contact with hot asphaltite

Products from dangerous decomposition: incomplete combustion and thermolysis produce gases more or less toxic, such as **CO**, CO2, various hydrocarbons etc., and soot as well.
In confined areas there can be accumulation of hydrogen sulfide.

11 Toxicology information

Acute toxicity – inhalation: No probable risk in normal condition of employment. Nevertheless, the inhalation of high concentration fumes may produce hydrocarbon narcosis and/or hydrogen sulfide intoxication

Acute toxicity – skin contact: non-classified. Normally, employment in correct temperature conditions or the physical state at room temperature prevent the cutaneous penetration

Acute toxicity – ingestion: non-classified

Local effects – inhalation: high concentration of hot asphaltite fumes or aerosols, can be irritating for the respiratory tract and mucous tissues

Local effects – skin contact: no risk of irritation at room temperature. There is the risk of thermal burns in case of contact with the hot product. The fumes of the hot asphaltite can be slightly irritating for the skin.

Local effects – eye contact: high concentration of hot asphaltite fumes or aerosols or of dusts from cold asphaltite can be irritating for the eyes.

Sensibility – skin contact: non sensitizer.

Chronic or long-term toxicity - Inhalation: high concentration of hot asphaltite fumes or aerosols can be irritating for the respiratory tract and the mucous tissues.

Chronic or long-term toxicity – skin contact: no chronic danger at room temperature. In normal condition of use, there is little skin contact with the asphaltite.

Carcinogenic: according to EU criteria, asphaltites are not classified as dangerous. They contain very little concentration of Polycyclic Aromatic Compounds (PAC). In non-diluted asphaltite, these PAC are not bio disposable. Nevertheless, if the asphaltite is mixed with diluents in order to obtain low viscosity product at room temperature, these PAC can become dangerous. Despite the presence of PAC, there is no proof that the exposure to the non-diluted asphaltite or its fumes, present cancer risk in man.

12 Ecological information

Mobility:
GROUND: considering its physicochemical characteristics, the product is not mobile in the ground
WATER: insoluble, the asphaltite floats or is deposited, depending on the nature of the water.

Persistence / degradability: in massive form, the product is practically unalterable in the environment.

Bioaccumulation: Although the fact that Log Pow values of asphaltite components rank above 6, which confers them a certain bio-accumulative potential, in reality their low water solubility and high molecular weight, imply a very limited biodisponibility potential toward the aquatic organisms and consequently an unlikely bioaccumulation.

Ecotoxicity: considered as non dangerous for the terrestrial plants and aquatic organisms.

13 Remarks on waste elimination

Adequate methods for waste elimination: the asphaltite wastes are not classified as dangerous wastes and the recommended method is that of their recycling or handing-over to an approved eliminator
Local dispositions: (French) Law n° 76-663 of 19/07/1976 modified (Classified installations).
Decree (French Official Journal) of July7, 1992 (nomenclature of I.C.).
Decree (French Official Journal) of April 18 2002 relative to waste classification

14 Information related to transport

COLD: Not classified as dangerous for the transport

Danger class ADR/RID:	none
Packing group ADR/RID:	none
Danger class IMDG:	none
Packing group IMDG:	none
Class/Element ADNR:	none
Danger class IATA/OACI:	none
Packing group IATA/OACI:	none

15 Regulatory Information

LEGISLATION COMMUNITY - LABELLING EU: In room temperature, according to modified instruction 67/548/CEE, on labeling of solid asphaltite - not concerned

EU Symbols:	None.
Phrases R:	None.
Phrases S:	None.
Social Security Code:	table(s) of professional disease: Not concerned.
Professional character diseases:	Article D461-6-D1.
Work code:	Art. R 241-50 order 11/07/1977
Classified installations:	N° 1520 - 1521.
Nomenclature on wastes JOCE 16.02.2001:	Category 05 01 08

16 Other informations

References:

Monograph from International Center for Cancer Research (CIRC or IARC) - Volume 35, January 1985, completed by supplement n°7 of 1987.
Rapport from CONCAWE Product dossier n° 92/104.
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Rapport d'analyse 3F142 17/04/2003 HAP/BTEX Selenizza Laboratoire WESSLING St-Priest France
Rapport Institut Universitaire Romand de Santé au Travail 1154.002 -070302 HAP Selenizza 2007
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SAFETY DATA SHEET

Conform with the EU Directive 2001/58/EC

Date of Data Sheet creation: 10/02/2020
Cancels and replaces SDS of January 2019.
Date Data Sheet edition : 10/02/2020

"This Data Sheet completes the notes of use but does not replace them. The information which it contains is based on the state of our knowledge relating to the product concerned, at the date indicated. They are given in good faith. Furthermore, the attention of the users is drawn on the eventually incurred risks when the product is used for purposes other than those for which it was conceived.
It does not exempt in any case the user from knowing and applying the totality of the texts regulating its activity. He will take on his own responsibility the precautions related to the way he uses the product. The totality of the mentioned regulation instructions aims to simply assist the final user to fulfill the obligations incumbent on him. This list cannot be considered as exhaustive. The recipient must make sure that there are not other obligations incumbent on him, resulting from texts other than those mentioned".

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