MATERIAL SAFETY DATA SHEET

Section 1 – Product Information

Product Name: Ivermectin Product Number: CAS 70288-86-7 Identified Uses: Laboratory chemical, R&D, manufacturing Company name: Albochemicals LLC Company website: <u>http://www.albochem.com</u> Address: 8 Green, Dover, DE 19901

Section 2 - Hazards Identification

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Combustible dust

Acute toxicity (Oral) : Category 4

Specific target organ toxicity - single exposure (Oral) : Category 1 (Central nervous system)

Specific target organ toxicity - repeated exposure (Oral) : Category 1 (Central nervous system)

GHS label elements

Signal Word : Danger

Hazard Statements :

If small particles are generated during further processing, handling or by other means, may form combustible dust concentrations in air.

H302 Harmful if swallowed.

H370 Causes damage to organs (Central nervous system) if swallowed.

H372 Causes damage to organs (Central nervous system) through prolonged or repeated exposure if swallowed.

Precautionary Statements :

Prevention: P260 Do not breathe dust.

P264 Wash skin thoroughly after handling.

Section 3 - Composition/Information on Ingredient

Substance Name: Ivermectin

CAS-No. : 70288-86-7 EC-No. : 274-536-0

4. First aid measures

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of the dangerous area.

If inhaled

If breathed in, move the person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

After swallowing: immediately make the victim drink water (two glasses at most). Consult a physician.

5. Firefighting measures

5.1 Extinguishing media Unsuitable extinguishing media For this substance/mixture no limitations of extinguishing agents are given.

5.2 Special hazards arising from the substance or mixture Carbon oxides

5.3 Advice for firefighters Stay in the danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

5.4 Further information Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the groundwater system

Section 6 - Accidental Release Measures

6.1 Personal precautions

Use personal protective equipment. Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Advice on safe handling Work under hood. Do not inhale substance/mixture. Hygiene measures immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance. For precautions see section 2.2.

7.2 Conditions for safe storage

Storage conditions Tightly closed. Dry.

Storage class Storage class (TRGS 510): 11: Combustible Solids

Section 8 - Exposure Controls / PPE

Ingredients with workplace control parameters

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Appropriate engineering controls Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance. Personal protective equipment Eye/face protection Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses Skin protection Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. Full contact Material: Nitrile rubber Minimum layer thickness: 0.11 mm Break through time: 480 min Material tested:Dermatril® (KCL 740 / Aldrich Z677272, Size M) Splash contact Material: Nitrile rubber Minimum layer thickness: 0.11 mm Break through time: 480 min If used in solution, or mixed with other substances, and under conditions which

differ from EN 374, contact the supplier of the EC approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection:

protective clothing

Respiratory protection:

Recommended Filter type: Filter type P3

maintenance, cleaning and testing of respiratory protective devices must be carried out according to the instructions of the producer. These measures have to be properly documented.

Required when dust is generated. Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Control of environmental exposure:

Do not let product enter drains.

Section 9 - Physical/Chemical Properties

a) Appearance Form: solid b) Odor No data available c) Odor Threshold No data available d) pH No data available e) Melting point/freezing point Melting point/range: 120 °C - dec. f) Initial boiling point and boiling range No data available g) Flash point ()No data available h) Evaporation rate No data available i) Flammability (solid, qas) No data available i) Upper/lower flammability or explosive limits No data available k) Vapor pressure No data available I) Vapor density No data available m) Density No data available Relative density No data available n) Water solubility No data available o) Partition coefficient: n-octanol/water No data available

p) Autoignition temperature No data available

q) Decomposition temperature No data available

r) Viscosity No data available

s) Explosive properties No data available

t) Oxidizing properties No data available

Section 10 - Stability and Reactivity

10.1 Reactivity
No data available
10.2 Chemical stability
The product is chemically stable under standard ambient conditions (room temperature).
10.3 Possibility of hazardous reactions
No data available
10.4 Conditions to avoid
Avoid moisture.
no information available
10.5 Incompatible materials
Strong oxidizing agents
10.6 Hazardous decomposition products
In the event of fire: see section 5

Section 11 - Toxicological Information

Acute oral toxicity :

LD50 (Rat): 50 mg/kg LD50 (Mouse): 25 mg/kg LD50 (Monkey): > 24 mg/kg

Target Organs: Central nervous system Symptoms: Vomiting, Dilatation of the pupil

Acute inhalation toxicity : LC50 (Rat): 5.11 mg/l Exposure time: 1 h Test atmosphere: dust/mist Acute dermal toxicity : LD50 (Rabbit): 406 mg/kg LD50 (Rat): > 660 mg/kg

IARC: No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA: No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP: No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Section 12 - Ecological Information

No data available.

Section 13 - Disposal Considerations

Product

Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. **Contaminated packaging** Dispose of an unused product.

Section 14 - Transport Information

DOT Classification: CLASS 6.1: Poisonous material. Identification: : Toxic solids n.o.s. (Ivermectin) : UN2811 PG: II

Special Provisions for Transport: Not available.

Section 15 - Regulatory Information

No information available

Section 16 - Other Information

This material does not contain any components with a section 304 EHS RQ.

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : Combustible dust Acute toxicity (any route of exposure) Specific target organ toxicity (single or repeated exposure)

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

US State Regulations Pennsylvania Right To Know Cellulose 9004-34-6 Starch 9005-25-8 Ivermectin 70288-86-7

California Prop. 65 Components This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm. SARA 304 Extremely Hazardous Substances Reportable Quantity

DISCLAIMER

For R&D use only. Not for drug, household or other uses.