

**Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)****SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifiers****SIHAZYM Flot**

The substance does not require registration according to Regulation (EC) No 1207/2006 [REACH]: X

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/ preparation: Enzyme preparations are biocatalysts used in a variety of industrial processes within food manufacturing

1.3. Details of the supplier of the safety data sheet

Supplier (manufacturer/importer/ downstream user/distributor): Eaton Technologies GmbH

Begerow Product Line
An den Nahewiesen 24
55450 Langenlonsheim

Telephone: +49 6704 204-0

Telefax: +49 6704 204-121

E-mail (competent person): SDB@Eaton.com

Dept. responsible for information: Produktmanagement
Only available during office hours.

Information telephone: +49 6704 204-0

1.4. Emergency telephone number

Dept. responsible for information: Emergency medical information: Giftinformationszentrum Mainz
(German and English).

Emergency telephone: +49 (6131) 19240

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture**

Classification according to Directive 67/548/EEC or 1999/45/EC:

Harmful.

May cause sensitization by inhalation.

Further remarks:

Repeated inhalation of enzyme dust or aerosols resulting improper handling may induce sensitization and may cause allergic type 1 reactions in sensitized individuals.

Irritant effect on the skin: mild irritant.

Irritant effect on the eye: mild irritant.

2.2. Label elements

Labelling (67/548/EEC or 1999/45/EC):

Hazard symbol(s) and hazard identifier(s) for dangerous materials and preparations:

Xn



R phrases:

R phrases	
R42	May cause sensitization by inhalation.

S-phrases:

S-phrases	
S23.g	Do not breathe gas/vapour/aerosol.
S24	Avoid contact with skin.
S36/37	Wear suitable protective clothing and gloves.

Labelling (CLP)**Hazard statements:**

Hazard statements:	
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.

2.3. Other hazards**Possible harmful physico-chemical effects:**

On basis of test data. none/none

Possible harmful effect(s) on the environment:

On basis of test data. none/none

SECTION 3: Composition / Information on ingredients**3.2. Mixtures****Hazardous ingredients:**

CAS No.	EC No	Chemical name:/ REACH registration No.	of (%)	up to (%)	Unit/ Content	Hazard symbol(s)	R phrases	INDEX no.
7447-40-7	231-211-8	potassium chloride	15	19	% by weight			
9032-75-1	232-885-6	Polygalacturonase	1	10	% by weight	Xn	42	
9033-35-6	232-894-5	Lyase, pectin	1	10	% by weight	Xn	42	

Full text of R-phrases: see section 16.

Labelling (CLP):

CAS No.	EC No	Chemical name:/ REACH registration No.	Hazard pictograms	Signal word	Hazard statements
7447-40-7	231-211-8	potassium chloride			
9032-75-1	232-885-6	Polygalacturonase			334
9033-35-6	232-894-5	Lyase, pectin			334

Full text of H-phrases: see section 16.

SECTION 4: First aid measures**4.1. Description of first aid measures****General information:**

Self-protection of the first aider

Accidental release measures high concentrations

After inhalation:

Effects: May produce an allergic reaction.

Symptoms: May cause allergy or asthma symptoms or breathing difficulties if inhaled. Cough

Remove casualty to fresh air and keep warm and at rest. In case of allergic symptoms, especially in the breathing area, seek medical advice immediately.

In case of skin contact:

Effects: Frequently or prolonged contact with skin may cause dermal irritation.

Symptoms: mild irritant.

After contact with skin, wash immediately with plenty of water and soap. In case of skin irritation, consult a physician.

Take off immediately all contaminated clothing. Wash contaminated clothing prior to re-use.

In case of eye contact:

Effects: Irritating to eyes.

Symptoms: mild irritant.

In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist. Remove contact lenses, if present and easy to do. Continue rinsing.

After ingestion:

Effects: The following symptoms may occur: After ingestion: Gastrointestinal complaints. Nausea. Vomiting.

Symptoms: irritant.

Rinse mouth immediately and drink plenty of water. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

4.2. Most important symptoms and effects, both acute and delayed**4.3. Indication of any immediate medical attention and special treatment needed****Information to physician:**

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media**Suitable extinguishing media:**

Carbon dioxide (CO₂). Water mist. Alcohol resistant foam. Dry extinguishing powder.

Extinguishing media which must not be used for safety reasons:

none/none

5.2. Special hazards arising from the substance or mixture**Special exposure hazards arising from the substance or preparation itself, its combustion products or from resulting gases:**

May produce an allergic reaction.

In case of fire may be liberated: Carbon monoxide. Carbon dioxide (CO₂).

5.3. Advice for firefighters**Special protective equipment for firefighters:**

In case of fire: Wear self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures**6.1.1. For non-emergency personnel****Personal precautions:**

First aider: Pay attention to self-protection!

See protective measures under point 7 and 8.

Keep unprotected people away and stay on the upwind side.

6.1.2. For emergency responders**6.2. Environmental precautions**

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up**Methods for cleaning up:**

Conditions to avoid Generation/formation of aerosols. Generation/formation of dust
Take up by mechanical means preferably by a vacuum cleaner equipped with a high efficiency filter. Flush remainder carefully with plenty of water. Avoid splashing and high pressure washing (avoid formation of aerosols).

Provide adequate ventilation.

6.4. Reference to other sections

SECTION 7: Handling and storage

7.1. Precautions for safe handling**Advices on safe handling:**

Conditions to avoid Generation/formation of aerosols. Generation/formation of dust
Provide for sufficient ventilation and punctiform suction at critical points.

Precautions against fire and explosion:

No special fire protection measures are necessary.

7.2. Conditions for safe storage, including any incompatibilities**Requirements for storerooms and containers:**

Keep container tightly closed in a cool, well-ventilated place.

Keep container dry. Keep only in the original container.

Storage temperature: 4 - 8 °C

7.3. Specific end use(s)

SECTION 8: Exposure controls/personal protection

8.1. Control parameters**8.2. Exposure controls****8.2.1. Appropriate engineering controls****Technical measures:**

Provide for sufficient ventilation and punctiform suction at critical points.

8.2.2. Personal protective equipment

Respiratory protection: If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.

Suitable respiratory protection apparatus: Particle filter device (DIN EN 143). P 3

Hand protection: The selection of suitable gloves not only depends on the material, but also on other quality characteristics. These may vary from manufacturer to manufacturer. Since the product is a preparation from several substances, the resistance of glove materials cannot be determined in advance and must therefore be checked prior to the application.

Suitable material: The glove material has to be impermeable and resistant to the product/the substance/the preparation. Due to missing tests no recommendation to the glove material can be given for the product/the preparation/the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

Penetration time (maximum wearing period): The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection: Tightly sealed safety glasses.

Body protection: Lab coat.

General protection and hygiene measures:

The usual precautionary measures are to be adhered to when handling chemicals.

8.2.3. Environmental exposure controls:

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: liquid
Colour: brown
Odour: slight fermentation odour

Important health, safety and environmental information:

	Unit	Method
pH:	3,5 - 5	

9.2. Other information**Additional information:**

Odour, ph Value, Boiling Point, Melting Point, Flash Point, Ignition temperature, Vapour pressure, Density and Solubility are not relevant to safety. For further information see the Product Specification and the Product Sheet for this preparation.

SECTION 10: Stability and reactivity**10.1. Reactivity****10.2. Chemical stability**

Substance is, under normal conditions, chemically stable.

10.3. Possibility of hazardous reactions**10.4. Conditions to avoid**

none/none

10.5. Incompatible materials

Reacts with : Oxidising agent.

10.6. Hazardous decomposition products

This article doesn't contain dangerous substances or preparations intended to be released under normal or reasonably foreseeable conditions of use.

SECTION 11: Toxicological information**11.1. Information on toxicological effects****Acute toxicity:**

CAS No.	Chemical name	LD50: oral	Unit	Species	LD50: dermal	Unit	Species	LC50: inhalat iv	Unit	Species
7447-40-7	potassium chloride	2600	mg/kg	Rat.						

Irritant and corrosive effects:

Irritant effect on the skin: mild irritant.

Irritant effect on the eye: mild irritant.

Sensitisation:

May cause sensitization by inhalation.

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction):

No indications of human germ cell mutagenicity exist.

Observations relevant to classification

No data available

SECTION 12: Ecological information**12.1. Toxicity****Aquatic toxicity:**

Data apply to the main component.

Algae toxicity

EC50: 72h = 2500 mg/l

Acute fish toxicity

LC50: 48h = 425-920 mg/l

Acute Daphnia toxicity

EC50: 48 h = 93-825 mg/l

Terrestrial toxicity:

No data available

Effects in sewage plants:

No data available

12.2. Persistence and degradability

Further details:

The organic part of the product is biodegradable.

12.3. Bioaccumulative potential

No indication of bioaccumulation potential.

12.4. Mobility in soil

not relevant

12.5. Results of PBT and vPvB assessment

The components in this formulation do not meet the criteria for classification as PBT or vPvB.

12.6. Other adverse effects

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Recommendation:

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

Do not allow to enter into surface water or drains.

Contaminated packaging:

Recommendation:

Non-contaminated packages may be recycled.

SECTION 14: Transport information

14.1. Land transport (ADR/RID)

14.2. Inland waterway craft (ADN/ADNR)

14.3. Sea transport (IMDG)

14.4. Air transport (ICAO-TI / IATA-DGR)

14.5. Additional information:

No dangerous good in sense of these transport regulations.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Water Hazard Class: 1 Source: S Selbsteinstufung

15.2. Chemical Safety Assessment

SECTION 16: Other information

Further remarks:

The above information describes exclusively the safety requirements of the product and is based on our present -day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to

other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

E-mail (competent person):

SDB@Eaton.com

Relevant R-and H-phrases (Number and full text):

R phrases	
R42	May cause sensitization by inhalation.

Hazard statements	
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.