



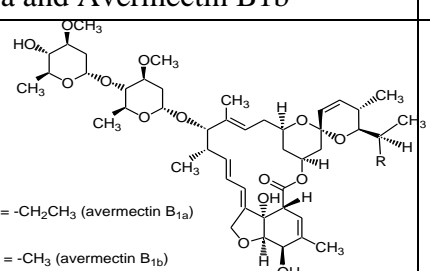
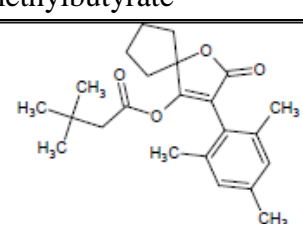
Material Safety Data Sheet (MSDS)

Storm SC

IDENTIFICATION OF THE SUPPLIER:

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PRODUCT IDENTIFICATION:

Common name :	Abamectin	Spiromesifen
Trade name	Storm SC	
Uses category	Insecticide / Miticide	
Type of formulation	Suspension concentrate	
Chemical name	A mixture of avermectins containing primarily Avermectin B1a and Avermectin B1b	3-mesityl-2-oxo-1 oxaspiro[4.4]non-3-en-4-yl 3,3-dimethylbutyrate
Chemical formula	 <p>(i) R = -CH₂CH₃ (avermectin B_{1a}) (ii) R = -CH₃ (avermectin B_{1b})</p>	
Molecular weight	873.1 (avermectin B1a); 859.1 (avermectin B1b)	370.5

PRODUCT COMPOSITION:

<i>Active ingredient</i>	<i>%w/v</i>	<i>CAS#</i>
Abamectin	1.14	71751-41-2
Spiromesifen	23	283594-90-1

Inert Ingredients: Up to 1 liter



HAZARDS IDENTIFICATION:

Classification of the substance or mixture

Classification in accordance with Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures, as amended.

Acute toxicity: Category 4

H302 Harmful if swallowed.

Acute toxicity: Category 4

H332 Harmful if inhaled.

Specific target organ toxicity - repeated exposure: Category 2

H373 May cause damage to organs through prolonged or repeated exposure.

Acute aquatic toxicity: Category 1

H400 Very toxic to aquatic life.

Chronic aquatic toxicity: Category 1

H410 Very toxic to aquatic life with long lasting effects.

Classification according to EU Directives 67/548/EEC or 1999/45/EC

Xn Harmful, R20/22

R48/22

N Dangerous for the environment, R50/53

Label elements

Labelling in accordance with Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures, as amended.

Hazard label for supply/use required.

Hazardous components which must be listed on the label:

- Abamectins, mixture of Avermectin B1b and Avermectin B1a
- Spiromesifen



Signal word: Warning

Hazard statements

H302 + H332 Harmful if swallowed or if inhaled.

H373 May cause damage to organs through prolonged or repeated exposure.

H410 Very toxic to aquatic life with long lasting effects.





EUH208 Contains Spiromesifen. May produce an allergic reaction.

EUH401 To avoid risks to human health and the environment, comply with the instructions for use.

Precautionary statements

P260 Do not breathe spray.

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

P309 + P311 IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician.

P501 Dispose of contents/container in accordance with local regulation.

FIRE-FIGHTING MEASURES: -

Extinguishing media Suitable Water spray, Carbon dioxide (CO₂), Foam, Sand

Special hazards arising from the substance or mixture In the event of fire the following may be released:, Hydrogen cyanide (hydrocyanic acid), Carbon monoxide (CO), Nitrogen oxides (NO_x)

Advice for firefighters Special protective equipment for fire-fighters In the event of fire, wear self-contained breathing apparatus

Further information Contain the spread of the fire-fighting media. Do not allow run-off from fire fighting to enter drains or water courses.

FIRST-AID MEASURES:

General advice Move out of dangerous area. Remove contaminated clothing immediately and dispose of safely. Place and transport victim in stable position (lying sideways).

Inhalation Move to fresh air. Keep patient warm and at rest. Call a physician or poison control center immediately.

Skin contact Wash off thoroughly with plenty of soap and water, if available with polyethyleneglycol 400, subsequently rinse with water.

Eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Get medical attention if irritation develops and persists.

Ingestion Do NOT induce vomiting. Call a physician or poison control center immediately. Rinse mouth.

Most important symptoms and effects, both acute and delayed

Symptoms No symptoms known or expected.

Indication of any immediate medical attention and special treatment needed

Treatment Treat symptomatically. Gastric lavage is not normally required.





However, if a significant amount (more than a mouthful) has been ingested, administer activated charcoal and sodium sulphate.

ACCIDENTAL RELEASE:

Personal precautions, protective equipment and emergency procedures

Precautions Avoid contact with spilled product or contaminated surfaces. Use personal protective equipment.

Environmental precautions

Do not allow to get into surface water, drains and ground water.

Methods and materials for containment and cleaning up

Methods for cleaning up Clean contaminated floors and objects thoroughly, observing environmental regulations. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal.

PHYSICAL-CHEMICAL DATA:

Form suspension

Colour grey white

Odour weak, characteristic

PH 5, 3 - 5, 7 at 100 % (23 °C)

Flash point > 100 °C

No flash point - Determination conducted up to the boiling point.

Ignition temperature 425 °C

Density ca.1,06 g/cm³ at 20 °C

Oxidizing properties No oxidizing properties

Explosivity Not explosive

92/69/EEC, A.14 / OECD 113

STABILITY AND REACTIVITY

Thermal decomposition Stable under normal conditions.

Chemical stability Stable under recommended storage conditions.

Possibility of hazardous reactions No hazardous reactions when stored and handled according to prescribed instructions.

Conditions to avoid Extremes of temperature and direct sunlight.

Incompatible materials Store only in the original container.

Hazardous decomposition products No decomposition products expected under normal conditions of use.





PERSONAL PROTECTION/SAFETY:

Control parameters

Components	CAS-No.	Control parameters	Update	Basis
Spiromesifen	283594-90-1	0,92 mg/m ³ (TWA)		OES BCS*

Exposure controls

Personal protective equipment

In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the following recommendations would apply.

Respiratory protection Not required; except in case of aerosol formation.

Hand protection Wear CE Marked (or equivalent) nitrile rubber gloves (minimum thickness 0,40 mm). Wash when contaminated. Dispose of when contaminated inside, when perforated or when contamination outside cannot be removed. Wash hands always before eating, drinking, smoking or using the toilet.

Eye protection Wear goggles conforming to EN166 (Field of Use 5 or equivalent).

Skin and body protection Wear standard coverall and type 3 suit.

Wear two layers of clothing wherever possible. Polyester/cotton or cotton overalls should be worn under chemical protection suit and should be professionally laundered frequently.

ACUTE TOXICITY (IRRITATION, SENSITISATION ETC.)

Information on toxicological effects

Acute oral toxicity (rat) > 300 - < 2.000 mg/kg

Acute inhalation toxicity LC50 (rat) > 3,1 - < 4,1 mg/l

Exposure time: 4 h

Determined in the form of a respirable aerosol.

Acute dermal toxicity LD50 (rat) > 2.000 mg/kg

Skin irritation Slight irritant effect - does not require labelling. (rabbit)

Eye irritation Slight irritant effect - does not require labelling. (rabbit)

Sensitisation Non-sensitizing. (mouse)

OECD Test Guideline 429, local lymph node assay (LLNA)

Assessment repeated dose toxicity

Abamectin caused specific target organ toxicity in experimental animal studies in the following organ(s): Nervous system.

Spiromesifen did not cause specific target organ toxicity in experimental animal studies.

Assessment Mutagenicity

Abamectin was not mutagenic or genotoxic based on the overall weight of evidence in a battery of in vitro and in vivo tests.





Spiromesifen was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

Assessment Carcinogenicity

Abamectin was not carcinogenic in lifetime feeding studies in rats and mice.

Spiromesifen was not carcinogenic in lifetime feeding studies in rats and mice.

Assessment Toxicity to Reproduction

Abamectin caused reproduction toxicity in a two-generation study in rats only at dose levels also toxic to the parent animals.

Spiromesifen caused reproduction toxicity in a two-generation study in rats only at dose levels also toxic to the parent animals. The reproduction toxicity seen with Spiromesifen is related to parental toxicity.

Assessment developmental toxicity

Abamectin caused an increased incidence of non-specific malformations.

Spiromesifen caused developmental toxicity only at dose levels toxic to the dams. The developmental effects seen with Spiromesifen are related to maternal toxicity.

ECOLOGICAL INFORMATION: -

Toxicity

Toxicity to fish LC50 (Oncorhynchus mykiss (rainbow trout)) 0,161 mg/l static test; Exposure time: 96 h

Toxicity to aquatic invertebrates

EC50 (Water flea (Daphnia magna)) 0,0076 mg/l

Exposure time: 48 h

Toxicity to aquatic plants EC50 (Pseudokirchneriella subcapitata) > 100 mg/l

Growth rate; Exposure time: 72 h

Persistence and degradability

Biodegradability Not applicable for this mixture.

Bioaccumulative potential

Bioaccumulation Not applicable for this mixture.

Mobility in soil

Mobility in soil Not applicable for this mixture.

DISPOSAL CONSIDERATIONS:

Waste treatment methods

Product In accordance with current regulations and, if necessary, after consultation with the site operator and/or with the responsible authority, the product may be taken to a waste disposal site or incineration plant.

Waste key for the unused product

020108 agrochemical waste containing dangerous substances



HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Use only in area provided with appropriate exhaust ventilation.

Advice on protection against fire and explosion

Keep away from heat and sources of ignition.

Hygiene measures Avoid contact with skin, eyes and clothing. Keep working clothes separately. Wash hands immediately after work, if necessary take a shower. Remove soiled clothing immediately and clean thoroughly before using again. Garments that cannot be cleaned must be destroyed (burnt). Wash hands before breaks and immediately after handling the product.

Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers

Store in a place accessible by authorized persons only. Keep containers tightly closed in a dry, cool and well-ventilated place.

Advice on common storage Keep away from food, drink and animal feedingstuffs.

Suitable materials HDPE (high density polyethylene)

Specific end uses Refer to the label and/or leaflet.

