1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Abamectin 5%EC

Trade Name: SUDUX

CAS No.: 71751-41-2

Molecular Weight: 873.1; 859.1

Chemical Formula: $C_{48}H_{72}O_{14}$; $C_{47}H_{70}O_{14}$

Supplier and Authorized Exporter: Shenzhen Yancheng Chemicals Co., Limited

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2. HAZARD IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008

Acute toxicity - Oral, Category 2

Acute toxicity - Inhalation, Category 1

Specific target organ toxicity – repeated exposure, Category 1

Hazardous to the aquatic environment, short-term (Acute) - Category Acute 1

Hazardous to the aquatic environment, long-term (Chronic) - Category Chronic 1

Reproductive toxicity, Category 2

2.2 Label elements

Labeling according to Regulation (EC) No. 1272/2008

Pictogram(s)

GHS09 GHS08 GHS06

Signal word

Danger

Hazard statement(s)

H300 Fatal if swallowed

H330 Fatal if inhaled

H372 Causes damage to organs through prolonged or repeated exposure

H410 Very toxic to aquatic life with long lasting effects

Precautionary statement(s)

P264 Wash ... thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P271 Use only outdoors or in a well-ventilated area.
P284 [In case of inadequate ventilation] wear respiratory protection.
P273 Avoid release to the environment.
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor/…
P321 Specific treatment (see ... on this label).
P330 Rinse mouth.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P310 Immediately call a POISON CENTER/doctor/…
P320 Specific treatment is urgent (see ... on this label).
P314 Get medical advice/attention if you feel unwell.
P391 Collect spillage.
P308+P313 IF exposed or concerned: Get medical advice/ attention.
P405 Store locked up.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P501 Dispose of contents/container to ...

3. COMPOSITION INFORMATION

Ingredient		CAS No.	Content
Active ingredient	Abamectin	71751-41-2	5%(w/v)
Inert	Not listed		Up to 100%

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.

If inhaled

If breathed in, move person into fresh air. If person is not breathing, call an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Consult a physician.

In case of skin contact

Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Consult a physician.

In case of eye contact

Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. Consult a physician.

If swallowed

Call a poison control center or doctor immediately for treatment advice. Do not give any liquid to the person. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to

an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

No data available.

5. FIRE FIGHTING MEASURES

5.1 Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Unusual Fire, Explosion and Reactivity Hazards

Combustible liquid. Can release vapors that form explosive mixtures at temperatures at or above the flash point. Heavy vapors can flow along surfaces to distant ignition sources and flash back.

During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

5.3 Advice for firefighters

Use appropriate extinguishing media for combustibles in the area. Wear full protective clothing and self-contained breathing apparatus. Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion. Prevent use of contaminated buildings, area, and equipment until decontaminated. Water runoff can cause environmental damage. If water is used to fight fire, dike and collect runoff.

6. ACCIDENTAL RELEASE MEASURES

6.1 In Case of Spill or Leak

Control the spill at its source. Contain the spill to prevent from spreading or contaminating soil or from entering sewage and drainage systems or any body of water. Clean up spills immediately, observing precautions outlined in Section 8.

Cover entire spill with absorbing material and place into compatible disposal container. Scrub area with hard water detergent (e.g. commercial products such as Tide, Joy, Spic and Span). Pick up wash liquid with additional absorbent and place into compatible disposal container. Once all material is cleaned up and placed in a disposal container, seal container and arrange for disposition.

7. HANDLING AND STORAGE

7.1 Handling

Do not get in eyes. Avoid contact with skin or clothing. Avoid breathing vapour or spray mist. Users should wash hands before eating, chewing gum, using tobacco, or using the toilet. Remove Personal Protective Equipment (PPE) immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

7.2 Storage

Store in the closed, original container in a well ventilated area out of direct sunlight. Store in a safe place away from foodstuffs, seeds or fertilizers. Store out of the reach of children. Do not contaminate water, food, or feed by storage or disposal.

7.3 Other Information

Always read the label and any attached leaflet before use.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL.

Eye/face Contact

Where eye contact is likely, use chemical splash goggles. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

Skin Contact

Where contact is likely, wear chemical-resistant (such as nitrile or butyl) gloves, coveralls, socks and chemical-resistant footwear. For overhead exposure, wear chemical-resistant headgear.

Ingestion

Prevent eating, drinking, tobacco usage and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

Inhalation

A combination particulate/ organic vapor respirator may be necessary until effective engineering controls are installed to comply with occupational exposure limits. Use a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with an HE prefilter.

Use a self-contained breathing apparatus in cases of emergency spills, when exposure levels are unknown, or under any circumstances where air-purifying respirators may not provide adequate protection.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Light yellow liquid
Odour	Not determined
Odour threshold	No data available
pH	4.5-7.0
Melting point/freezing point	No data available
Initial boiling point and boiling range	No data available
Flash point	No data available
Evaporation rate	No data available
Flammability (solid,gas)	Flammable
Upper/lower flammability or explosive limits	No data available
Vapour pressure	No data available
Vapour density	No data available
Relative density	No data available
Water Solubility	Form an emulsion in the water
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available

Viscosity No data available

10. STABILITY AND REACTIVITY

10.1 Stability

Stable under normal use and storage conditions.

10.2 Hazardous Polymerization

Will not occur.

10.3 Conditions to avoid

Excessive heat, sparks and open flame

10.4 Materials to avoid

None known.

10.5 Hazardous decomposition products

Can decompose at high temperatures forming toxic gases.

11. TOXICOLOGICAL INFORMATION

11.1 Acute Toxicity/Irritation Studies (Finished Product)

Ingestion

Moderately Toxic

Oral (LD50 Rat) : ~ 300 mg/kg body weight

Dermal

Moderately Toxic

Dermal (LD50 Rabbit) : > 1,800 mg/kg body weight

Inhalation

Practically Non-Toxic

Inhalation (LC50 Rat) : 3.5 mg/l air - 4 hours

Eye Contact

Moderately Irritating (Rabbit)

Skin Contact

Moderately Irritating (Rabbit)

Skin Sensitization

Sensitizing (Guinea Pig).

Reproductive/Developmental Effects

Reproductive toxin in animal studies only at doses acutely toxic to the maternal animal.

Chronic/Subchronic Toxicity Studies

Central nervous system effects in animals.

Carcinogenicity

None observed.

Other Toxicity Information

ACUTE – Abamectin

Causes substantial but temporary eye injury. May be fatal if swallowed. Prolonged or frequently repeated exposure may cause allergic skin reactions in some individuals. Early signs of abamectin poisoning include

mydriasis (dilated pupils), ataxia (unsteadiness) and muscle tremors.

Toxicity of Other Components

Butylated Hydroxytoluene (BHT)

Listed as an IARC (Group 3) carcinogen; not classifiable as a human carcinogen (no data available) with limited animal evidence. Exposure may result in irritation to eyes, skin and respiratory tract. Ingestion may cause diarrhea, respiratory depression, tremors, and chronic pulmonary edema or congestion and hemorrhage.

Mineral Oil

May cause respiratory irritation when inhaled as a mist.

n-Methylpyrrolidone (< 30%)

May cause respiratory tract irritation. Repeated or prolonged exposure may cause drying and cracking of the skin.

Other materials that show synergistic toxic effects together with the product

None known.

Target Organs

Active Ingredients	
Abamectin Technical	Skin, eye, CNS
Inert Ingredients	
Butylated Hydroxytoluene (BHT)	Eye, skin, respiratory tract
Mineral Oil	Respiratory tract
n-Methylpyrrolidone	Eye, skin

12. ECOLOGICAL INFORMATION

12.1 Summary of Effects

Highly toxic to fish, invertebrates, birds and bees. Not bioconcentrateable in fish.

12.2 Eco-Acute Toxicity

Bees LC50/EC50 0.002 ug/bee

Invertebrates (Water Flea) LC50/EC50 0.00037 ppm

Fish (Trout) LC50/EC50 0.0036 ppm

Fish (Bluegill) LC50/EC50 0.0096 ppm

Birds (8-day dietary - Bobwhite Quail) LC50/EC50 3,102 ppm

Birds (8-day dietary - Mallard Duck) LC50/EC50 383 ppm

12.3 Eco-Chronic Toxicity

No data available

12.4 Environmental Fate

Low bioaccumulation potential. Not persistent in soil. Stable in water. Low mobility in soil. Mixes in water (after 24 h).

13. DISPOSAL CONSIDERATION

13.1 Disposal

Do not reuse product containers. Dispose of product containers, waste containers, and residues according

to local, state, and federal health and environmental regulations.

Characteristic Waste

Not Applicable.

14. TRANSPORT INFORMATION

UN Number: 2902

UN Proper Shipping Name: Pesticides, Liquid, Toxic, N.O.S. (Abamectin Solution), Marine Pollutant

Transport hazard class: 6.1

Packing group: III

Environmental hazards: Marine pollutant

15. REGULATORY INFORMATION

15.1 Labeling according to Regulation (EC) No 1272/2008

Pictogram(s)

GHS09

GHS08

GHS06

Signal word

Danger

Hazard statement(s)

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16. OTHER INFORMATION

Disclaimer:

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The manufacture provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose. The manufacture makes no representations or express or implied, including without limitation any warranties of merchantability fitness for a particular purpose with respect to the information set forth herein or the product to which the information refers. Accordingly, the manufacture will not be responsible for damages resulting from use of or reliance upon this information.

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