MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

1.1. Identification of the substance/preparation

- Product name:

   SCALIBOR – COLLIER BLANC

1.2. Use of the substance/preparation

- Insecticide

1.3. Company/undertaking identification

- AKZO NOBEL – Intervet – rue de Lyons – 27460 IGOVILLE - France
- Tel. : + 33 (0)2 32 98 92 70
- Fax : + 33 (0)2 32 98 92 71

1.4. Emergency telephone


2. COMPOSITION / INFORMATION ON INGREDIENTS

2.1. Substances presenting a health or environmental hazard

2.1.1. Deltamethrin

- Einecs or Elincs n° : 258-256-6
- CAS n° : 52918-63-5.
- Concentration : 4 % (weight/weight).
- Symbols of danger : T (Toxic) ; N (dangerous for the environment)
- Risk phrases : R23/25 ; R50/53.

2.1.2. Triphenyl phosphate

- Einecs or Elincs n° : 204-112-2
- CAS n° : 115-86-6
- Concentration : 31 % (weight/weight)
- Symbol of danger : N (dangerous for the environment)
- Risk phrase : R50/53
3. HAZARDS IDENTIFICATION

3.1. Classification of the substance/preparation
   - Xn: R65.
   - N: R50/53.

3.2. Physicochemical effects
   - Slightly fire hazard; dust/air mixtures may ignite or explode.

3.3. Human health effects
   - Hazardous if swallowed.

3.4. Environmental effects
   - Very toxic to aquatic organisms.
   - May cause long-term adverse effects to aquatic organisms.

4. FIRST AID MEASURES

4.1. Inhalation
   - Remove immediately from exposure area to fresh air, if possible.
   - Get immediate medical attention.
   - Give artificial respiration if no breathing.

4.2. Skin contact
   - Wash skin with soap or light detergent and plenty of water for at least 15 minutes, while removing contaminated clothing, jewels and shoes.
   - Get medical attention if needed.

4.3. Eye contact
   - Wash eyes immediately with large amounts of water or normal saline for at least 15 minutes, occasionally lifting upper and lower eyelids.
   - Get immediate medical attention.

4.4. Ingestion
   - Get immediate medical attention.
   - Do not induce vomiting. If vomiting occurs, keep head lower than hips to help prevent aspiration.
   - Never give anything by mouth to a person who is not fully conscious.
5. FIRST AID MEASURES

5.1. Fire hazards
   > Slight fire hazard. Dust/air mixtures may ignite or explode

5.2. Hazardous decomposition products
   > Thermal decomposition may release toxic gases, such as carbon monoxide, nitrogen oxides, halogenated compounds, oxides of phosphorus

5.3. Suitable extinguishing media
   > Dry chemical, foams, water spray.

5.4. Extinguishing media which must not be used for safety reasons
   > High-pressure water streams.

5.5. Special protective equipment for fire-fighters
   > Self-contained breathing apparatus.
   > Protective clothing, gloves, boots.

5.6. Other recommendations
   > Move containers from fire area if it can be done without risk.
   > Cool exposed containers with water spray.
   > Keep spilled material away from drains or watercourse.
   > Avoid inhalation of combustion by-products.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions
   > Remove sources of ignition.
   > Provide sufficient ventilation.
   > Keep unnecessary people away.
   > Protective equipment as self-contained breathing apparatus, protective clothes, gloves, shoes has to be foreseen.

6.2. Environmental precautions
   > Keep spilled material away from drains, watercourses, ground water and soil.

6.3. Methods for cleaning up
   > Stop leaks and absorb spilled product with non-combustible material as sand, earth, vermiculite.
   > Collect material into suitable, dry and clean container and close it, for later disposal, according to local regulations
7. HANDLING AND STORAGE

7.1. Handling
   - Use methods to minimize dust
   - Employee must wear appropriate protective clothing, gloves and safety glasses, in order to avoid contact with the product.
   - Provide adequate general ventilation and/or local exhaust system on occupational sites.
   - Provide ocular fountains and showers near working area where the product is often handled.
   - Do not eat, drink or smoke in work areas.
   - Wash hands carefully after handling the product.

7.2. Storage
   - Store in the original packing.
   - Store in a cool, dry, well-ventilated place, away from water, combustible materials, ignition or heat sources.
   - Avoid storage near food.
   - Store away from incompatible substances.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Exposure limit values
8.1.1. polyvinyl chloride
   - UK OES TWA (respirable dust) = 4 mg/m³.

8.1.2. Titanium dioxide
   - OSHA TWA (total dust) = 15 mg/m³

8.1.3. Triphenyl phosphate
   - OSHA TWA = 3mg/m³

8.2. Occupational exposure controls
8.2.1. Respiratory protection
   - Provide appropriate ventilation (exhaust system on working area; good general ventilation).
   - Provide appropriate self-contained breathing apparatus if there is no compliance with exposure limits.

8.2.2. Hand protection
   - Employee must wear chemical resistant gloves.

8.2.3. Eye protection
   - Employee must wear safety goggles to prevent eye contact with this product.
   - Provide an eye wash fountain near working area.

8.2.4. Skin protection
   - Employee must wear protective clothing.

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9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance: white solid.
- Odour: faint odor.
- pH: not applicable.
- Flash point: not applicable
- Specific gravity: not determined
- Solubility: Slightly soluble in water.

10. STABILITY AND REACTIVITY

> Stable at normal temperature and pressure.

10.1. Conditions to avoid
> Avoid flames and other sources of heat.
> Avoid contact with incompatible materials.

10.2. Materials to avoid
> Oxidisers, combustible materials, metals, acids, bases, amines.

10.3. Hazardous decomposition products
> Carbon monoxide, nitrogen oxides, halogenated compounds, oxides of phosphorus.

11. TOXICOLOGICAL INFORMATION

11.1. Toxicity data

11.1.1. deltamethrin
- LD₅₀ (oral-ra) = 9360 µl/kg.
- LC₅₀ (inhalation-rat) = 785 mg/m³/2 hours.

11.1.2. Soybean oil, epoxidized
- LD₅₀ (oral-rat) = 40 g/kg.

11.1.3. Titanium dioxide
- LD₅₀ (inhalation-rat) = 6820 mg/m³/4 hours
- LD₅₀ (oral-rat): > 24000 mg/kg.

11.1.4. Triphenyl phosphate
- LD₅₀ (oral-rat) = 3500 mg/kg
11.2. Health effects

11.2.1. Inhalation

- Acute exposure: may cause irritation to the nose, throat and lungs, may cause hypersensitivity, convulsions, blurred vision, fatigue, headache, vertigo, nausea, diarrhea, tearing, pulmonary edema, coma.
- Chronic exposure: may cause effects as described in acute exposure, and asthma, changes in the liver.

11.2.2. Skin contact

- Acute exposure: may cause irritation.
- Chronic exposure: may cause mild irritation

11.2.3. Eye contact

- Acute exposure: may cause eye irritation, lacrimation.
- Chronic exposure: no data available.

11.2.4. Ingestion

- Acute exposure: may cause hypersensitivity, nervous irritability, convulsions
- Chronic exposure: may cause changes in the liver and kidneys.

12. Ecological Information

12.1. Ecotoxicity

12.1.1. Deltamethrin

- Fish ( Oncorhynchus mykiss ) : LC₉₀ (mortality) = 2.3 µg/l - 96 h.
- Invertebrate ( Daphnia magna ) : EC₉₀ (Immobilization) = 0.029 µg/l - 48 h.

12.1.2. Soybean oil, epoxidized

- Invertebrate ( Artemia salina ) : LC₉₀ (mortality) = 240 mg/l - 24 h.

12.1.3. Triphenyl phosphate

- Fish ( Oncorhynchus mykiss ) : LC₉₀ (mortality) = 300 µg/l - 96 h.
- Invertebrate ( Daphnia magna ) : EC₉₀ (immobilization) = 10 000 µg/l - 48 h.
- Algae ( Anabaena flosaquae ) ; nitrogen fixation = 100 µg/l - 28 h.

12.2. Environmental Summary

- Highly toxic to aquatic life
13. DISPOSAL CONSIDERATIONS

13.1. Product disposal
   ➢ Avoid evacuation in sewers, ground water and soils

13.2. Packaging disposal
   ➢ If recycling is not possible, dispose in accordance with applicable regulations.

14. TRANSPORT INFORMATION

14.1. Land transport (ADR/RID) : No classification assigned

14.2. Air transport (IATA – ICAO) : No classification assigned

14.3. Maritime transport (IMDG) : No classification assigned

15. REGULATORY INFORMATION

15.1. Labelling information
   • List of symbols and phrases according to the Directives relating to classification, packaging and labelling of dangerous substances and preparations (67/548/CEE, 1999/45/CE and addenda):

15.1.1. Symbols and indications of danger
   • Xn (harmful).
   • N (dangerous for the environment).

15.1.2. Risk phrases
   • R20/22: Harmful by inhalation and if swallowed
   • R50/53 : Very toxic to aquatic organisms ; may cause long-term adverse effects in the aquatic environment.

15.1.3. Safety advices
   • S45 : In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

15.1.4. Complementary phrase
   • « Contains deltamethrin ».

15.2. National regulations
   ➢ Refer to any other national measures that may be relevant.

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16. OTHER INFORMATION

16.1. Employee training

＞ Employee training has to be foreseen concerning risks, safety precautions and measures taken in case of accident.

16.2. Main sources of key data used to compile the data sheet

- OHS, ELLIS, WEKA, ECB
- International transport regulations.

16.3. Date of issue of the data sheet


Trappes, 31 March 2005

Division Manager
Packaging and Logistic Means

Bernard PICQUE

Responsible for the carrying out of the MSDS

Jacques CHARET

This MSDS is based on the information given by your company.