

Safety Data Sheet: Carbodox

1. IDENTIFICATION

Product Name:	Carbodox
Other Names:	None
Recommended Use:	Insecticide
Distributor:	Key Industries Ltd
Address:	PO Box 65 070 Mairangi Bay, Auckland 0754
Telephone:	09 917 1791
Emergency Phone:	027 4941659
National Poisons Centre:	0800 764 766

2. HAZARDS IDENTIFICATION

Hazard Classification: 6.1E, 6.5B, 6.9B, 9.1D, 9.3C, 9.4A

Hazards: May be harmful if swallowed.
May cause an allergic skin reaction.
May cause damage to organs through prolonged or repeated exposure
Toxic to aquatic life.
Harmful to terrestrial vertebrates.
Very toxic to terrestrial invertebrates.

3. COMPOSITION: Information on Ingredients

Ingredient	CAS Number	Concentration (%w/w)
s-Indoxacarb	173584-44-6	4.9
1,2-benzisothiazol-3(2H)-one	2634-33-5	0.03
Propylene Glycol	57-55-6	<10.0
Balance – Proprietary ingredients of low hazard	Proprietary	To 100%

4. FIRST AID MEASURES

Consult the National Poisons Information Centre 0800 POISON (0800 764 766) or a doctor in every case of suspected chemical poisoning. Never give fluids or induce vomiting if a patient is unconscious or convulsing regardless of cause of injury. If breathing difficulties occur seek medical attention immediately.

Swallowed

If swallowed, do not induce vomiting. Begin artificial respiration if the victim is not breathing. Use mouth to nose rather than mouth to mouth. Obtain urgent medical attention.

Skin Contact

Remove contaminated clothing and shoes and wash skin with plenty of soap and water. DO NOT scrub the skin. Wash clothing before reuse. Destroy contaminated shoes and other contaminated leather articles such as belts and watchbands. Seek medical attention if symptoms persist.

Eye Contact

Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Remove contact lenses if present and easy to do and continue rinsing. Do NOT allow victim to rub eyes or keep eyes closed. Obtain medical attention if symptoms persist.

Inhalation

Move the victim to fresh air immediately. Begin artificial respiration if breathing has stopped. Obtain medical attention immediately.

First Aid facilities

Provide eye baths and safety showers close to areas where exposure may occur.

Medical Attention

Treat symptomatically and supportively, monitoring the development of hypersensitivity reactions with respiratory distress. No known antidote. In all cases consult the National Poisons Centre for the most up to date treatment information.

Safety Data Sheet: Carbodox

5. FIRE FIGHTING MEASURES

Shut off product that may 'fuel' a fire if safe to do so. Allow trained personnel to attend a fire in progress, providing fire fighters with this Safety Data Sheet. Prevent extinguishing media from escaping to drains and waterways.

Suitable extinguishing media

Water fog, fine spray, foam, dry chemical powder or carbon dioxide. Do not use water stream directly as this may spread fire or give a violent steam eruption. Cool fire exposed container with water spray.

Hazards from combustion products

Burning chemicals may produce by-products more toxic than the original material. Decomposition from combustion may emit acrid smoke and toxic fumes containing carbon oxides, nitrogen oxides, hydrogen fluoride.

Precautions for fire fighters and special protective equipment

Full protective clothing with chemical goggles, butyl or neoprene gloves and self-contained breathing apparatus

Hazchem Code

None

Flash Point

>100°C

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures

Prevent product from escaping to drains and waterways. Contain leaking packaging in a containment vessel or bunded area. Prevent any vapours or dust from building up in confined areas. Ensure that drain valves are closed at all times. Clean up minor spills immediately.

Methods and materials for containment for a major spill

Eliminate sources of ignition. Warn occupants of downwind areas of possible hazards. Keep the public away from the area. Prevent product from entering sewers, watercourses, or low-lying areas. Shut off the source of the spill if safe to do so. Advise relevant authorities if substance has entered a watercourse or sewer or has contaminated soil or vegetation. Take measures to minimise the effect on the groundwater. If possible recover product using a pump paying attention to flammability hazards or absorbent material. Collect and seal in properly labelled containers for disposal. Consult an expert on disposal of recovered material and ensure conformity to local disposal regulations. In all instances due consideration must be given for First Aid Measures (Section 4), PPE requirements (Section 8), Stability and Reactivity (Section 10) for this material.

7. HANDLING AND STORAGE

Precautions for safe handling

Keep out of reach of children. Keep containers closed. Avoid sources of ignition including smoking. Use only in well-ventilated areas. When handling do not eat, drink or smoke. Wash hands thoroughly after handling. Wash clothing separately before reuse.

Conditions for safe storage

Store in a cool, dry place away from direct sunlight. Keep away from heat and ignition sources. Store in original containers. Protect from physical damage to prevent accidental release. Do not store with food, feedstuffs, fertilizers and seeds.

Incompatible materials

None known.

Fire Extinguisher Requirements

No specific requirements.

8. EXPOSURE CONTROLS: Personal Protection

Exposure Limits

A WES has been set by MBIE for a material in this product, propane-1,2 diol (propylene glycol). The WES for propylene glycol is TWA (vapour and particulates) 150ppm or 474 mg/m³. TWA (particulates only) 10 mg/m³.

Safety Data Sheet: Carbodox

Engineering Controls:

The use of local exhaust ventilation is recommended to control process emissions near the source. Sufficient ventilation should be provided to keep the solvent in air concentrations below any relevant exposure limit. Provide mechanical ventilation of confined spaces.

Hygiene Controls:

Facilities storing or utilising this material should be equipped with an eyewash facility, safety shower and facility for washing hands/face after work.

Personal Protective Equipment

Respiratory Protection: When spraying Carbodox below 1m height use a P2 disposable facemask as minimum respiratory protection.

Eye protection: Always use safety glasses or a chemical goggles when handling this product. Contact lenses may absorb and concentrate irritants, glasses are recommended.

Skin/ Body Protection: Always wear long sleeves and long trousers or coveralls, and enclosed footwear of safety boots when handling this product. It is recommended that chemical resistant gloves (eg nitrile, neoprene) be worn when handling this product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	White opaque liquid
Boiling Point (°C):	Approximately 100
Melting Point(°C):	Not applicable
Flash Point(°C):	>100
Lower Explosive Limit, LEL (%):	No data available
Upper Explosive Limit, UEL (%):	No data available
SG/ Density, 20°C (g/mL):	1.00 – 1.05
Vapour Pressure, 20°C (kPa):	No data available
Alkalinity/ acidity as pH:	5.0 – 6.0
Solubility in water:	Forms a suspension

The values listed are indicative of this product's physical and chemical properties. For a full product specification, please consult Key Industries.

10. STABILITY AND REACTIVITY

Chemical stability

Stable at room temperature and pressure.

Hazardous decomposition products

Decomposition from combustion may emit acrid smoke and toxic fumes containing carbon oxides, nitrogen oxides, and hydrogen fluorides.

Specific Materials to Avoid

Strong acids, alkalis, oxidising agents, reducing agents and heat.

Hazardous Polymerisation

Not known to occur.

11. TOXICOLOGICAL INFORMATION

Acute Effects

Ingestion: Low toxicity if swallowed. Exposure may result in such nonspecific symptoms as headache, dizziness, weakness, and nausea. Impaired mobility and tremors have been observed in laboratory studies.

Ingestion of small amounts is unlikely to cause permanent injury. Contact a doctor immediately if ingested.

Eye Contact: The liquid may cause transient eye irritation. Avoid eye contact

Skin Contact: Contact with the skin may result in temporary mechanical irritation and may cause an allergic skin reaction in susceptible persons. Avoid skin contact.

Inhalation: The vapour/mist may be discomforting to the upper respiratory tract and lungs. Acute effects from inhalation of high vapour concentrations may cause effects similar to that of ingestion.

Safety Data Sheet: Carbodox

Chronic Effects

Prolonged or repeated exposure may result in central nervous system effects such as tremors, uncoordination and disorientation. Repeated skin contact may cause sensitisation. Persons with pre-existing conditions are advised to limit or avoid product contact.

Other Health Effects Information

Not Available.

Toxicological Information

Oral LD₅₀: 179 mg/kg (rat), indoxacarb active ingredient; 2392 mg/kg (product, estimated)

Dermal LD₅₀: >5000 mg/kg (rat)

Inhalation LC₅₀: >5.5 mg/L (rat)

12. ECOLOGICAL INFORMATION

Ecotoxicity

This product is harmful to the environment, with the potential to result in irreparable and irreversible effects. See hazard classifications in section 15 of this document. No specific ecological data available on this product.

Persistence/ Biodegradability: log P: 4.65. This substance (indoxacarb) is regarded as moderately bioaccumulative and not persistent.

Mobility: This product is not readily soluble with water limiting its mobility in the environment. This product is likely to have low mobility in the environment and low leaching potential

Aquatic Toxicity:

Fish toxicity LC₅₀: 0.65 mg/L; indoxacarb active ingredient

Daphnia Magna EC₅₀: 0.60 mg/L; indoxacarb active ingredient

Algae EC₅₀: 0.11 mg/L; indoxacarb active ingredient

Honey Bees: 0.094 µg/organism; indoxacarb active ingredient

13. DISPOSAL CONSIDERATIONS

Product Disposal

Dispose of product only by using according to label or using an approved waste disposal contractor. If this material as supplied becomes a waste care should be taken to ensure compliance with national and local authorities. It is the responsibility of the waste generator to determine the toxicity and physical properties of the waste generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Do not dispose of via municipal sewers, drains, natural streams or rivers

Packaging Disposal

Triple rinse container and add rinsate to the spray tank. Empty packaging should be taken for recycling, recovery or disposal through a suitably qualified or licensed contractor. Care should be taken to ensure compliance with national and local authorities. Packaging may still contain product residue that may be harmful. Incinerate via approved incinerators or crush and bury in an approved landfill. Ensure that empty packaging is managed in accordance with and HSNO regulations.

14. TRANSPORT INFORMATION

UN No: Not a DG for transport

15. REGULATORY INFORMATION

Country/ Region: New Zealand

ACVM Approval Number: Not applicable

EPA Approval Number: HSR100876

HSNO Classifications: 6.1E Acute Toxicity (Oral); 6.5B Sensitiser (Contact); 6.9B Target Organ Toxicant; 9.1D Aquatic Ecotoxicant; 9.3C Ecotoxicant: Terrestrial Vertebrate; 9.4A Ecotoxicant Terrestrial Invertebrate

Safety Data Sheet: Carbodox

HSNO Controls:

Trigger Quantities for this Material:

- Certified Handler Test Certificate: Not Required
- Location/Transit Depot Certificate: Not Required
- Hazardous Atmosphere Zone: Not Required
- Signage: 100 L
- Emergency Plan, Secondary Containment: 100L
- Tracking: Not required

The trigger quantities above must take into account any other hazardous substance that is present at that location. This represents a partial list of the controls for this material. Contact Key Industries Ltd a full list of HSNO controls.

16. OTHER INFORMATION

Reasons for Issue:

Updated format. Added TWA for propylene glycol. Changed Section 11 consistent with data available. Updated trigger quantities

Abbreviations:

TWA - the highest allowable exposure concentration in an eight-hour day for a five-day working week

STEL - maximum allowable exposure concentration at any time

CAS Number: Chemical Abstracts Number

EPA: Environmental Protection Authority of New Zealand

HSNO: Hazardous Substances and New Organisms

References:

- Supplier Safety Data Sheets
- Hazardous Substances Databank
- EPA Chemical Classification Information Database
- FOOTPRINT Pesticides Database
- Sax's Dangerous Properties of Industrial Materials, 11th Ed, 2007
- Synapse Chemlib Handbook of Solvents

The information sourced for the preparation of this document was correct and complete at the time of writing to the best of the suppliers knowledge. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace. The document represents the commitment to the company's responsibilities surrounding the supply of this product, undertaken in good faith. This document should be taken as a safety guide for the product and its recommended uses, but is in no way an absolute authority. Please consult the relevant legislation and regulations governing the use and storage of this type of product. For further information, please contact Key Industries Limited.