

**KARLSTEN DUAL BUG & INSECT DESTROYER +**

**SAFETY DATA SHEET**  
(REACH regulation (EC) n° 1907/2006 - n° 2015/830)

**SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

**1.1. Product identifier**

Product name:  
KARLSTEN DUAL BUG & INSECT DESTROYER+  
UFI: ANFH-RQ9N-A00A-T3JX

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

General public  
Insecticide - biocidal use

**Use descriptor system (REACH):**

Not available.

**1.3. Details of the supplier of the safety data sheet**

Registered company name: (GB) LODI UK LTD  
Address: Unit 104, Potter Space, 7 Kidderminster Road, Cutnall Green, Droitwich WR9 0NS,  
UNITED KINGDOM  
Telephone: 01384 404242  
E-mail: [sales@lodi-uk.com](mailto:sales@lodi-uk.com)

**1.4. Emergency telephone number:**

Healthcare professionals: Dial 0344 892 0111 to reach The National Poisons Information Service (NPIS) (24- hour service)  
General public:  
England - Dial 111 to reach NHS 111 (24- hour service)  
Scotland - Dial 111 to reach NHS 24 (24- hour service)  
Wales - Dial 111 or 0845 4647 to reach NHS Direct (24- hour service).

**SECTION 2: HAZARDS IDENTIFICATION**

**2.1. Classification of the substance or mixture**

**In compliance with EC regulation No. 1272/2008 and its amendments.**

May produce an allergic reaction (EUH208).  
Hazardous to the aquatic environment - Acute hazard, Category 1 (Aquatic Acute 1, H400).  
Hazardous to the aquatic environment - Chronic hazard, Category 1 (Aquatic Chronic 1, H410).  
This mixture does not present a physical hazard. Refer to the recommendations regarding the other products present on the site.

**2.2. Label elements**

Biocidal mixture (see section 15).

**In compliance with EC regulation No. 1272/2008 and its amendments.**

Hazard pictogram:



GHS09

Signal Word:

WARNING

Additional labeling:

EUH208

Contains 2-METHYLISOTHIAZOL-3(2H)-ONE. May produce an allergic reaction.

Hazard statements:

H410

Very toxic to aquatic life with long lasting effects.

Precautionary statements – Prevention:

P273

Avoid release to the environment.

Precautionary statements – Disposal:

P501

Dispose of contents/container according to the regulation.

**2.3. Other hazards**

The mixture does not contain substances classified as 'Substances of Very High Concern' (SVHC)  $\geq$  0.1% published by the European Chemicals Agency (ECHA) under article 57 of REACH: <http://echa.europa.eu/fr/candidate-list-table>

The mixture fulfils neither the PBT nor the vPvB criteria for mixtures in accordance with Annex XIII of the REACH regulations EC 1907/2006.

The mixture does not contain substances  $\geq$  0.1% with endocrine disrupting properties in accordance with the criteria of the Delegated Regulation (EU) 2017/2100 of the Commission or Regulation (EU) 2018/605 of the Commission.

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**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

**3.2. Mixtures**

**Composition:**

Identification	Classification (EC) 1272/2008	Note	%
INDEX: 607-421-00-4 CAS: 52315-07-8 EC: 257-842-9  CYPERMETHRIN (ISO)	GHS07, GHS08, GHS09 Wng Acute Tox. 4, H332 Acute Tox. 4, H302 STOT SE 3, H335 STOT RE 2, H373 Aquatic Acute 1, H400 M Acute = 100000 Aquatic Chronic 1, H410 M Chronic = 100000		0 <= x % < 2.5
INDEX: 89997637_CO2 CAS: 89997-63-7 EC: 289-699-3  CHRYSANTHEMUM CINERARIAEFOLIUM, EXTRACT FROM OPEN AND MATURE FLOWERS OF TANACETUM CINERARIIFOLIUM OBTAINED WITH SUPERCRITICAL CO2	GHS07, GHS09 Wng Acute Tox. 4, H302 Skin Sens. 1B, H317 Acute Tox. 4, H332 Aquatic Acute 1, H400 M Acute = 100 Aquatic Chronic 1, H410 M Chronic = 100		0 <= x % < 2.5
INDEX: 613-326-00-9 CAS: 2682-20-4 EC: 220-239-6  2-METHYLISOTHIAZOL-3(2H)-ONE	GHS06, GHS05, GHS09 Dgr Acute Tox. 3, H301 Acute Tox. 3, H311 Skin Corr. 1B, H314 Skin Sens. 1A, H317 Eye Dam. 1, H318 Acute Tox. 2, H330 Aquatic Acute 1, H400 M Acute = 10 Aquatic Chronic 1, H410 M Chronic = 1 EUH:071		0 <= x % < 2.5

**Specific concentration limits:**

Identification	Specific concentration limits	ATE
INDEX: 607-421-00-4 CAS: 52315-07-8 EC: 257-842-9  CYPERMETHRIN (ISO)		inhalation: ATE = 3.3 mg/l 4h (dust/mist) oral: ATE = 500 mg/kg BW
INDEX: 89997637_CO2 CAS: 89997-63-7 EC: 289-699-3  CHRYSANTHEMUM CINERARIAEFOLIUM, EXTRACT FROM OPEN AND MATURE FLOWERS OF TANACETUM CINERARIIFOLIUM OBTAINED WITH SUPERCRITICAL CO2		inhalation: ATE = 2.3 mg/l 4h (dust/mist) oral: ATE = 1030 mg/kg BW
INDEX: 613-326-00-9 CAS: 2682-20-4 EC: 220-239-6  2-METHYLISOTHIAZOL-3(2H)-ONE	Skin Sens. 1A: H317 C>= 0.0015%	

**Nanoform**

Not available.

**Information on ingredients :**

(Full text of H-phrases: see section 16)

**SECTION 4: FIRST AID MEASURES**

As a general rule, in case of doubt or if symptoms persist, always call a doctor.  
 NEVER induce swallowing by an unconscious person.

**4.1. Description of first aid measures**

**In the event of exposure by inhalation :**

In the event of an allergic reaction, seek medical attention.

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### In the event of splashes or contact with eyes:

Wash thoroughly with fresh, clean water for 15 minutes holding the eyelids open.

### In the event of splashes or contact with skin:

In the event of an allergic reaction, seek medical attention.

### In the event of swallowing

In the event of swallowing, if the quantity is small (no more than one mouthful), rinse the mouth with water and consult a doctor.

Keep the person exposed at rest. Do not force vomiting.

Seek medical attention, showing the label.

If swallowed accidentally, call a doctor to ascertain whether observation and hospital care will be necessary. Show the label.

### 4.2. Most important symptoms and effects, both acute and delayed

No data available.

### 4.3. Indication of any immediate medical attention and special treatment needed

#### Specific and immediate treatment:

Treat symptomatically.

#### Information for the doctor:

Treat symptomatically.

## SECTION 5: FIREFIGHTING MEASURES

Non-flammable.

### 5.1. Extinguishing media

#### Suitable methods of extinction

In the event of a fire, use:

- sprayed water or water mist

#### Unsuitable methods of extinction

In the event of a fire, do not use:

- water jet

### 5.2. Special hazards arising from the substance or mixture

A fire will often produce a thick black smoke. Exposure to decomposition products may be hazardous to health.

Do not breathe in smoke.

In the event of a fire, the following may be formed:

- carbon monoxide (CO)
- carbon dioxide (CO<sub>2</sub>)

### 5.3. Advice for firefighters

No data available.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### 6.1. Personal precautions, protective equipment and emergency procedures

Consult the safety measures listed under headings 7 and 8.

#### For first aid worker

First aid workers will be equipped with suitable personal protective equipment (See section 8).

### 6.2. Environmental precautions

Contain and control the leaks or spills with non-combustible absorbent materials such as sand, earth, vermiculite, diatomaceous earth in drums for waste disposal.

Prevent any material from entering drains or waterways.

### 6.3. Methods and material for containment and cleaning up

Clean preferably with a detergent, do not use solvents.

### 6.4. Reference to other sections

No data available.

## SECTION 7: HANDLING AND STORAGE

Requirements relating to storage premises apply to all facilities where the mixture is handled.

### 7.1. Precautions for safe handling

Always wash hands after handling.

Remove and wash contaminated clothing before re-using.

Ensure that there is adequate ventilation, especially in confined areas.

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### Fire prevention:

Handle in well-ventilated areas.  
Prevent access by unauthorised personnel.

### Recommended equipment and procedures:

For personal protection, see section 8.  
Observe precautions stated on label and also industrial safety regulations.  
Packages which have been opened must be reclosed carefully and stored in an upright position.

### Prohibited equipment and procedures:

No smoking, eating or drinking in areas where the mixture is used.

### 7.2. Conditions for safe storage, including any incompatibilities

No data available.

### Storage

Keep out of reach of children.  
Keep the container tightly closed in a dry, well-ventilated place.  
The floor must be impermeable and form a collecting basin so that, in the event of an accidental spillage, the liquid cannot spread beyond this area.

### Packaging

Always keep in packaging made of an identical material to the original.  
Recommended types of packaging:  
Original packaging.  
Suitable packaging material:  
Original packaging.  
Unsuitable packaging materials:  
Different than the original packaging.

### 7.3. Specific end use(s)

No data available.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

No data available.

### 8.2. Exposure controls

#### Personal protection measures, such as personal protective equipment

Pictogram(s) indicating the obligation of wearing personal protective equipment (PPE) :



Use personal protective equipment that is clean and has been properly maintained.  
Store personal protective equipment in a clean place, away from the work area.  
Never eat, drink or smoke during use. Remove and wash contaminated clothing before re-using. Ensure that there is adequate ventilation, especially in confined areas.

#### - Eye / face protection

Avoid contact with eyes.  
Use eye protectors designed to protect against liquid splashes  
Before handling, wear safety goggles in accordance with standard EN166.

#### - Hand protection

Use suitable protective gloves that are resistant to chemical agents in accordance with standard EN ISO 374-1.  
Gloves must be selected according to the application and duration of use at the workstation.  
Protective gloves need to be selected according to their suitability for the workstation in question: other chemical products that may be handled, necessary physical protections (cutting, pricking, heat protection), level of dexterity required.

Type of gloves recommended:

- PVA (Polyvinyl alcohol)
- Butyl Rubber (Isobutylene-isoprene copolymer)

#### - Body protection

Work clothing worn by personnel shall be laundered regularly.  
After contact with the product, all parts of the body that have been soiled must be washed.

#### - Respiratory protection

N/A

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**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

**9.1. Information on basic physical and chemical properties**

**Physical state**

Physical state: Fluid liquid.

**Colour**

Unspecified

**Odour**

Odour threshold: Not stated.

**Melting point**

Melting point/melting range: Not relevant.

**Freezing point**

Freezing point / Freezing range: Not stated.

**Boiling point or initial boiling point and boiling range**

Boiling point/boiling range: Not relevant.

**Flammability**

Flammability (solid, gas): Not stated.

**Lower and upper explosion limit**

Explosive properties, lower explosivity limit (%): Not stated.

Explosive properties, upper explosivity limit (%): Not stated.

**Flash point**

Flash Point Interval: 60°C < FP <= 93°C

**Auto-ignition temperature**

Self-ignition temperature: Not relevant.

**Decomposition temperature**

Decomposition point/decomposition range: Not relevant.

**pH**

pH (aqueous solution): Not stated.

pH: 5.40  
Neutral.

**Kinematic viscosity**

Viscosity: Not stated.

**Solubility**

Water solubility: Dilutable.

Fat solubility: Not stated.

**Partition coefficient n-octanol/water (log value)**

Partition coefficient: n-octanol/water: Not stated.

**Vapour pressure**

Vapour pressure (50°C): Below 110 kPa (1.10 bar).

**Density and/or relative density**

Density: 1.0055

**Relative vapour density**

Vapour density: Not stated.

**9.2. Other information**

No data available.

**9.2.1. Information with regard to physical hazard classes**

No data available.

**9.2.2. Other safety characteristics**

No data available.

**SECTION 10: STABILITY AND REACTIVITY**

**10.1. Reactivity**

Stable under normal conditions.

**10.2. Chemical stability**

This mixture is stable under the recommended handling and storage conditions in section 7.

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### 10.3. Possibility of hazardous reactions

When exposed to high temperatures, the mixture can release hazardous decomposition products, such as carbon monoxide and dioxide, fumes and nitrogen oxide.

### 10.4. Conditions to avoid

None.

### 10.5. Incompatible materials

None.

### 10.6. Hazardous decomposition products

The thermal decomposition may release/form:

- carbon monoxide (CO)
- carbon dioxide (CO<sub>2</sub>)

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Exposure to vapours from solvents in the mixture in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on kidney, liver and central nervous system.

Symptoms produced will include headaches, numbness, dizziness, fatigue, muscular asthenia and, in extreme cases, loss of consciousness.

Repeated or prolonged contact with the mixture may cause removal of natural oil from the skin resulting in non-allergic contact dermatitis and absorption through the skin.

Splashes in the eyes may cause irritation and reversible damage

#### 11.1.1. Substances

##### Acute toxicity:

CHRYSANTHEMUM CINERARIAEFOLIUM, EXTRACT FROM OPEN AND MATURE FLOWERS OF TANACETUM CINERARIIFOLIUM OBTAINED WITH SUPERCRITICAL CO<sub>2</sub> (CAS: 89997-63-7)

Oral route: LD50 = 1030 mg/kg bodyweight/day  
Species: Rat

Dermal route: LD50 > 2000 mg/kg bodyweight/day  
Species: Rabbit

Inhalation route (Dusts/mist): LC50 = 2.3 mg/l  
Species: Rat  
Duration of exposure: 4 h

CYPERMETHRIN (ISO) (CAS: 52315-07-8)  
Oral route: LD50 = 500 mg/kg bodyweight/day

Inhalation route (Dusts/mist): LC50 = 3.3 mg/l  
Duration of exposure: 4 h

#### 11.1.2. Mixture

##### Respiratory or skin sensitisation :

Contains at least one sensitising substance. May cause an allergic reaction.

### 11.2. Information on other hazards

#### Monograph(s) from the IARC (International Agency for Research on Cancer) :

CAS 102-71-6: IARC Group 3: The agent is not classifiable as to its carcinogenicity to humans.

CAS 128-37-0: IARC Group 3: The agent is not classifiable as to its carcinogenicity to humans.

## SECTION 12: ECOLOGICAL INFORMATION

Very toxic to aquatic life with long lasting effects.

The product must not be allowed to run into drains or waterways.

### 12.1. Toxicity

#### 12.1.1. Substances

CHRYSANTHEMUM CINERARIAEFOLIUM, EXTRACT FROM OPEN AND MATURE FLOWERS OF TANACETUM CINERARIIFOLIUM OBTAINED WITH SUPERCRITICAL CO<sub>2</sub> (CAS: 89997-63-7)

Fish toxicity: LC50 = 0.0052 mg/l  
Factor M = 100  
Species: Oncorhynchus mykiss  
Duration of exposure: 96 h

Crustacean toxicity: EC50 = 0.012 mg/l  
Species: Daphnia magna

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Aquatic plant toxicity: Duration of exposure: 48 h  
ECr50 = 0.0014 mg/l  
Duration of exposure: 96 h

**12.1.2. Mixtures**

No aquatic toxicity data available for the mixture.

**12.2. Persistence and degradability**

**12.2.1. Substances**

CHRYSANTHEMUM CINERARIAEFOLIUM, EXTRACT FROM OPEN AND MATURE FLOWERS OF TANACETUM CINERARIIFOLIUM  
OBTAINED WITH SUPERCRITICAL CO2 (CAS: 89997-63-7)

Biodegradability: Non-rapidly degradable.

**12.3. Bioaccumulative potential**

**12.3.1. Substances**

CHRYSANTHEMUM CINERARIAEFOLIUM, EXTRACT FROM OPEN AND MATURE FLOWERS OF TANACETUM CINERARIIFOLIUM  
OBTAINED WITH SUPERCRITICAL CO2 (CAS: 89997-63-7)

Octanol/water partition coefficient: log Kow > 4

**12.4. Mobility in soil**

No data available.

**12.5. Results of PBT and vPvB assessment**

No data available.

**12.6. Endocrine disrupting properties**

No data available.

**12.7. Other adverse effects**

No data available.

**SECTION 13: DISPOSAL CONSIDERATIONS**

Proper waste management of the mixture and/or its container must be determined in accordance with Directive 2008/98/EC.

**13.1. Waste treatment methods**

Do not pour into drains or waterways.

**Waste:**

Waste management is carried out without endangering human health, without harming the environment and, in particular without risk to water, air, soil, plants or animals.

Recycle or dispose of waste in compliance with current legislation, via a certified collector or company.

Do not contaminate the ground or water with waste, do not dispose of waste into the environment.

**Soiled packaging:**

Empty container completely. Keep label(s) on container.

Give to a certified disposal contractor.

**SECTION 14: TRANSPORT INFORMATION**

Transport product in compliance with provisions of the ADR for road, RID for rail, IMDG for sea and ICAO/IATA for air transport (ADR 2021 - IMDG 2020 [40-20] - ICAO/IATA 2022 [63]).

**14.1. UN number or ID number**

3082

**14.2. UN proper shipping name**

UN3082=ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(cypermethrin (iso))

**14.3. Transport hazard class(es)**

- Classification:



9

**14.4. Packing group**

III

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**14.5. Environmental hazards**

- Environmentally hazardous material:



**14.6. Special precautions for user:**

ADR/RID	Class	Code	Pack gr.	Label	Ident.	LQ	Provis.	EQ	Cat.	Tunnel
	9	M6	III	9	90	5 L	274 335 375 601	E1	3	-

Not subject to this regulation if Q ≤ 5 l / 5 kg (ADR 3.3.1 - DS 375)

IMDG	Class	2°Label	Pack gr.	LQ	EMS	Provis.	EQ	Stowage Handling	Segregation
	9	-	III	5 L	F-A. S-F	274 335 969	E1	Category A	-

Not subject to this regulation if Q ≤ 5 l / 5 kg (IMDG 3.3.1 - 2.10.2.7)

IATA	Class	2°Label	Pack gr.	Passager	Passager	Cargo	Cargo	note	EQ
	9	-	III	964	450 L	964	450 L	A97 A158 A197 A215	E1
	9	-	III	Y964	30 kg G	-	-	A97 A158 A197 A215	E1

Not subject to this regulation if Q ≤ 5 l / 5 kg (IATA 4.4.4 - DS A197)

For limited quantities, see part 2.7 of the OACI/IATA and chapter 3.4 of the ADR and IMDG.

For excepted quantities, see part 2.6 of the OACI/IATA and chapter 3.5 of the ADR and IMDG.

Marine pollutant (IMDG 3.1.2.9):(cypermethrin (iso))

**14.7. Maritime transport in bulk according to IMO instruments**

No data available.

**SECTION 15: REGULATORY INFORMATION**

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

**Classification and labelling information included in section 2:**

The following regulations have been used:

- EU Regulation No. 1272/2008 amended by EU Regulation No. 2022/692 (ATP 18)

**Container information:**

The mixture does not contain any substance restricted under Annex XVII of Regulation (EC) No. 1907/2006 (REACH):  
<https://echa.europa.eu/substances-restricted-under-reach>.

**Particular provisions :**

No data available.

**Labelling for biocidal products (Regulation (UE) n° 528/2012) :**

Name	CAS	%	Product-type
CYPERMETHRIN (ISO)	52315-07-8	1.02 g/l	18
CHRYSANTHEMUM CINERARIAEFOLIUM, EXTRACT FROM OPEN AND MATURE FLOWERS OF TANACETUM CINERARIIFOLIUM OBTAINED WITH SUPERCRITICAL CO2	89997-63-7	0.10 g/l	18

Product-type 18 : Insecticides, acaricides and products to control other arthropods.

**15.2. Chemical safety assessment**

No data available.

**SECTION 16: OTHER INFORMATION**

Since the user's working conditions are not known by us, the information supplied on this safety data sheet is based on our current level of knowledge and on national and community regulations.

The mixture must not be used for other uses than those specified in section 1 without having first obtained written handling instructions.

It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations.

The information in this safety data sheet must be regarded as a description of the safety requirements relating to the mixture and not as a guarantee of the properties thereof.

**Wording of the phrases mentioned in section 3:**

H301	Toxic if swallowed.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.

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H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H330	Fatal if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H373	May cause damage to organs through prolonged or repeated exposure .
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
EUH071	Corrosive to the respiratory tract.

**Abbreviations and acronyms :**

LD50 : The dose of a test substance resulting in 50% lethality in a given time period.  
LC50 : The concentration of a test substance resulting in 50% lethality in a given period.  
EC50 : The effective concentration of substance that causes 50% of the maximum response.  
ECr50 : The effective concentration of substance that causes 50% reduction in growth rate.  
REACH : Registration, Evaluation, Authorization and Restriction of Chemical Substances.  
ATE : Acute Toxicity Estimate  
BW : Body Weight  
UFI : Unique formulation identifier.  
STEL : Short-term exposure limit  
TWA : Time Weighted Averages  
TMP : French Occupational Illness table  
TLV : Threshold Limit Value (exposure)  
AEV : Average Exposure Value.  
ADR : European agreement concerning the international carriage of dangerous goods by Road.  
IMDG : International Maritime Dangerous Goods.  
IATA : International Air Transport Association.  
ICAO : International Civil Aviation Organisation  
RID : Regulations concerning the International carriage of Dangerous goods by rail.  
WGK : Wassergefahrdungsklasse (Water Hazard Class).  
GHS09 : Environment  
PBT: Persistent, bioaccumulable and toxic.  
vPvB : Very persistent, very bioaccumulable.  
SVHC : Substances of very high concern.