Hallmark Chemicals bv
Wilhelminakade 91, 3072 AP Rotterdam, the Netherlands
Tel: +31 10 414 42 77 Fax: +31 10 414 30 23 Email: info@hallmarkchem.com

SAFETY DATA SHEET

COBRA 100 EC

Version 1.0/lsr **Issue date:** 12.01.2021

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

Product identifiers

Product name:	COBRA 100 EC
Chemical name:	Pyriproxyfen
CAS No.:	95737-68-1

Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Insecticide for agricultural use

Details of the supplier of the safety data sheet

Supplier:
Hallmark Chemicals bv
Wilhelminakade 91
3072 AP Rotterdam
The Netherlands
Tel: +31 10 414 42 77
Fax: +31 10 414 30 23
Email: info@hallmarkchem.com

Formulator site:
A. Agrosmart Ltd
Huddersfield, W. Yorks, UK
B. Denka International bv
Hanzeweg 1, Barneveld, Holland

Emergency telephone number

Tel: +44 20 8995 8391 (SDS support, 9.00-5.00 pm; Mon-Fri only, UK)

SECTION 2: HAZARDS IDENTIFICATION

Classification and Labelling elements:

Asp hazard 1
Skin irrit. 2
Eye irrit. 2
Aq chronic 2

Pictogram(s):

Signal word: Danger

Hazard statement(s):

H304: May be fatal if swallowed and enters airways
H315: Causes skin irritation
H319: Causes serious eye irritation
H411: Toxic to aquatic life with long lasting effects

Precautionary statement(s):

P260: Do not breathe fumes/mist/vapours/spray.
P280: Wear protective gloves/clothing/eye protection/face protection
P301+P310:
IF SWALLOWED: Immediately call a POISON CENTER /doctor

P305+P351+P338:
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312: Call a POISON CENTER/doctor if you feel unwell
P501: Dispose of contents/container in accordance with local/regional regulations.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS Number	Conc. (g/L)	Signal word	H Statements
Pyriproxyfen	95737-68-1	100	Danger	H400, H410
Solvent Naphtha (petroleum ND)	64742-94-5	>500	Danger	H304, H411, H336
Benzene sulphonic acid, calcium salts	90194-26-6	<50	Warning	H315, H318, H226, H335, H336

SECTION 4: FIRST AID MEASURES

If poisoning occurs, immediately contact a doctor or Poisons Information Centre and follow the advice given. Show this Safety Data Sheet to the doctor.

Ingestion: Rinse mouth. Do NOT induce vomiting. Do not give liquids of any kind. Never give anything by mouth to an unconscious person. Seek medical attention.

Skin contact: Remove contaminated clothing. Wash affected area with plenty of water.

Inhalation: Remove person to fresh air and make comfortable for breathing. If breathing is difficult or discomfort occurs and persists, seek medical attention.

Eye contact: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

Medical Advice: This product contains aromatic hydrocarbons that can produce a severe pneumonitis or pulmonary oedema if aspirated during vomiting. Consideration should be given to gastric lavage with an endotracheal tube in place. Treatment is otherwise controlled.

There is no antidote if this product is ingested. Observe the patient and treat symptomatically. If vomiting occurs, keep head below hips to prevent aspiration.

SECTION 5: FIRE FIGHTING MEASURES

Extinguishing media: For small fires, use dry chemical foam or carbon dioxide extinguishing media. For large fires, use foam or water-fog; avoid use of water jet. Evacuate non-essential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion. Decontaminate building, area and equipment before re-use. Contain and collect run-off water with, for example, temporary earth barriers.

Protective equipment: A self-contained breathing apparatus and suitable protective clothing should be worn in fire conditions.

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

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions: Ensure suitable personal protection during removal of spillages. This means wearing eye protection, chemically resistant gloves, boots and coveralls, and self-contained breathing apparatus.

Clean up methods: Contain the spill at its source to prevent it from spreading, contaminating soil, or 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. Once all material is cleaned up (with additional absorbent) and placed in a disposal container, seal container prior to its disposal.

SECTION 7: HANDLING AND STORAGE

Handling: Avoid contact with skin and eyes. Do not breathe spray. When using, do not eat, drink or smoke. Wash face and hands before eating, drinking or smoking.

Storage: Keep original containers, tightly closed, out of reach of children. Keep away from food, drink and animal feeding stuffs. Protect from frost.

Incompatibility: Incompatible with acids.

Flammability: Not flammable under normal conditions of use. The product does not sustain combustion.

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

Occupational Exposure limits:
Heavy aromatic solvent (Petroleum ether) 100 mg/m^3 TWA

Engineering controls: Use only in well-ventilated areas. If necessary, use local exhaust ventilation to keep airborne concentration below exposure limits.

Personal protective equipment:
Wear face shield or goggles.
Wear cotton overalls buttoned to the neck and wrist (or equivalent clothing) and a washable hat, heavy-duty shoes or boots.
Wear elbow length nitrile or neoprene rubber gloves.
If working in a poorly ventilated area or if occupational exposure levels are likely to be exceeded, wear a respirator with filter for vapours.
After each day's use, wash gloves, goggles or face shield, respirator if worn, and contaminated clothing.

Do not re-enter treated areas without protective clothing until spray residue has dried.

SECTION 9: PHYSICAL / CHEMICAL PROPERTIES

a)	Appearance:	Clear yellow liquid
b)	Odour:	solvent / aromatic
c)	Odour threshold:	None set
d)	pH:	4 - 7
e)	Melting point/freezing point::	48-49°C (tech.)
f)	Boiling point/boiling range:	318°C (tech.)
g)	Flashpoint:	>61°C
h)	Evaporation rate:	Not measured
i)	Flammability (solid/gas):	Combustible liquid
j)	Upper/lower flammability or explosive limits:	None set
k)	Vapour pressure:	1.33 x 10^{-2} mPa (25°C) (tech.)
l)	Vapour density:	1.16 X 10^{-2} Pa m^3mol-1 (tech.)
m)	Relative density:	0.905 – 0.925 g/mL at 24°C
n)	Solubility:	0.37 mg/L (water, 20°C) (tech.)
o)	Partition coefficient:	Log P_{ow} 5.37 (tech.)
p)	Auto-ignition temperature:	Not determined
q)	Decomposition temperature:	318°C (tech.)
r)	Viscosity:	not determined
s)	Explosive properties:	Not explosive
t)	Oxidising properties:	Not oxidising

SECTION 10: STABILITY AND REACTIVITY

Reactivity Stable under normal conditions of use. Will not polymerise.

Chemical Stability: Stable under normal use and conditions.

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

Conditions to avoid Sources of ignition and extreme heat.

Incompatible materials Avoid strong oxidising agents. Heat and alkaline conditions may cause product to break down.

Hazardous decomposition Products: Does not decompose at ambient temperature. Combustion or thermal decomposition will evolve toxic and irritant vapours.

SECTION 11: TOXICOLOGICAL INFORMATION

Oral toxicity: LD_{50} rat: >2500 mg/kg (GHS Cat 5)

Dermal toxicity: LD_{50} rat: >4000 mg/kg (GHS Cat 5)

Inhalation toxicity: LC_{50} (4h) rat >5.17 mg/L

Skin irritation: Moderate skin irritant

Eye irritation: Irritating to eyes

Skin sensitisation: Not a skin sensitiser

Not considered to be carcinogenic, teratogenic, genotoxic or mutagenic

Long-term exposure: No long term risks to man are associated with the normal handling and use of this material.

SECTION 12: ENVIRONMENTAL INFORMATION

(based on technical material)

Bird toxicity:	LD_{50} Bobwhite quail; mallard duck	>2000 mg/kg
Fish toxicity:	LC_{50} 96 h rainbow trout	>0.27 mg/L
***Daphnia* toxicity:**	EC_{50} 48 h *Daphnia magna*	0.4 mg/L
Algal toxicity:	EC_{50} 72h *Scenedesmus subspicatus*	0.15 mg/L

Environmental fate in soil: Non-persistent in soil. DT_{50} 6-19 days in laboratory and 9-10 days in the field. Unlikely to leach into groundwater as it is virtually immobile in soil due to strong adsorption and low water solubility.

SECTION 13: DISPOSAL CONSIDERATIONS

Do not contaminate ponds, waterways or ditches with chemical or used containers. Empty containers should be washed and discarded. Empty containers should not be used for other purposes. Disposal should be in accordance with local, state or national legislation.

SECTION 14: TRANSPORTATION INFORMATION

UN number:	3082		
UN Proper Shipping Name:	Environmentally hazardous substance, liquid, N.O.S. (contains pyriproxyfen)		
Transport hazard class:	ADR/RID: 9	IMDG: 9	IATA: 9
Packaging group:	ADR/RID: III	IMDG: III	IATA: III
Environmental hazard:	ADR/RID: Yes	IMDG: Marine pollutant: Yes	IATA: Yes

SECTION 15: REGULATORY INFORMATION

No additional regulatory information required for this product.

SECTION 16: OTHER INFORMATION

H Statements:

H226	Flammable liquid and vapour
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H318	Causes serious eye damage
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness
H400	Very toxic to aquatic life

H410	Very toxic to aquatic life with long-lasting effects
H411	Toxic to aquatic life with long-lasting effects

TWA: Time weighted average is the average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day week.

No liability is accepted for any injury, loss, damage or cost arising directly or indirectly from the use of the product or from the use of information contained within the safety data sheet, since the customer's treatment of the product is necessarily beyond our control. The supplied data are based on current knowledge and experience. This safety data sheet is intended to describe our product in terms of safety requirements. The customer should determine by appropriate trials that the product is suitable for its intended use.

Sections 9, 11 and 12 based on available EU data and own studies.
Self-classification of mixture