

# SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006 (REACH)



## Art. 2280, INSEKT-EX

Version: 11

Revision date: 03.07.2023

Date of print: 03.07.2023

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### SECTION 1. Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifier

**Identification / trade name:** Art. 2280, INSEKT-EX  
**REACH registration number:** not notifiable  
**UFI:** R8FP-EJKY-P60H-RNDJ

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

**Use of the substance / mixture:**

Insecticide

#### 1.3 Details of the supplier of the safety data sheet

**Supplier / Manufacturer:** HWR-CHEMIE GmbH  
Moosfeldstrasse 7  
D-82275 Emmering

**Telephone:** 0049-8141-51030  
**Telefax:** 0049-8141-510355  
**E-mail:** info@hwr-chemie.de

**E-mail (competent person):** infoSDB@hwr-chemie.de  
**Information contact:** Laboratory

#### 1.4 Emergency phone

**Emergency phone Germany:** 0049-8141-51030 (only during office hours)  
**Emergency phone Austria:** 0043 1 406 43 43 (poison information centre)

### SECTION 2. Hazards identification

#### 2.1 Classification of the substance or mixture

**Regulation (EC) No 1272/2008**

Asp. Tox. 1, H304; Skin Sens. 1, H317; Aquatic Acute 1, H400; Aquatic Chronic 1, H410

#### 2.2 Label elements

**Regulation (EC) No 1272/2008**

**Hazard pictograms**



**Signal word:** Danger.

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### Hazard components for labeling

Permethrin, Tetramethrin, Piperonyl butoxide, Hydrocarbons

### Hazard statements

H304 May be fatal if swallowed and enters airways.

H317 May cause an allergic skin reaction.

H410 Very toxic to aquatic life with long lasting effects.

### Precautionary statements

P261 Avoid breathing fume/gas/mist/vapours/spray.

P280 Wear protective gloves.

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P331 Do NOT induce vomiting.

P302 + P352 IF ON SKIN: Wash with plenty of water and soap.

P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.

P501 Dispose of contents/container at hazardous or special waste collection point.

### Supplementary Hazard Information

EUH018 In use, may form flammable/explosive vapour-air mixture.

EUH066 Repeated exposure may cause skin dryness or cracking.

### 2.3 Other hazards

The substances in this mixture do not meet the PBT/vPvB criteria of REACH, annex XIII.

The substances in this mixture do not have any endocrine disrupting properties.

## SECTION 3. Composition / information on ingredients

### 3.1 Substances

This product is a mixture.

### 3.2 Mixtures

#### Chemical characterization

Mixture of pyrethroids, synergistic compounds and aliphatic hydrocarbons.

#### Hazardous ingredients

- 90-100 % Hydrocarbons, C11-14, aliphatic, isoalkane, cyclic, < 2% aromatics, EG 927-285-2, Asp. Tox. 1, H304
- < 5 % 2-(2-Butoxyethoxy)-ethanol, EG 203-961-6, CAS 112-34-5, Eye Irrit. 2, H319
- < 2 % Permethrin 25/75 cis:trans, EG 258-067-9, CAS 52645-53-1, Acute Tox. 4, 302, 332; Skin Sens. 1, H317; Aquatic Acute 1, H400 (M=10.000); Aquatic Chronic 1, H410 (M=10.000)
- < 1 % Tetramethrin, EG 231-711-6, CAS 7696-12-0, Carc. 2, H351; Acute Tox. 4, H302; STOT SE 2, H371; Aquatic Acute 1, H400 (M=100); Aquatic Chronic 1, H410 (M=100)
- < 1 % Piperonyl butoxide, EG 200-076-7, CAS 51-03-6, Aquatic Acute 1, H400; Aquatic Chronic 1, H410

#### Additional information

Full text of H-phrases: see section 16.

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### SECTION 4. First aid measures

#### 4.1 Description of first aid measures

- General informations:** In case of persistent symptoms seek medical advice. Remove contaminated clothing. In case of unconsciousness place patient into stable side position for transportation. Never give fluids or induce vomiting if patient is unconscious or is having convulsions.
- In case of inhalation:** Provide affected person with fresh air and seek medical advice depending on the symptoms.
- In case of skin contact:** Contaminated, soaked clothing should be immediately removed. Wash skin thoroughly with soap and water.
- In case of eye contact:** Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.
- In case of ingestion:** Rinse mouth immediately and then drink plenty of water. Do not induce vomiting. Seek medical advice at once. In case of spontaneous vomiting hold the head of the casualty low with the body in a prone position in order to avoid aspiration.

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

Dizziness, headache. Contact with eyes may cause reddening, running eyes and smarting pain. Ingestion may cause severe pain in the digestive tract. Skin contact may cause irritation.

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

Symptomatic treatment (decontamination, vital functions), no known specific antidote.

### SECTION 5. Fire-fighting measures

#### 5.1 Extinguishing media

**Suitable extinguishing media:** Water spray jet / alcohol resistant foam / CO<sub>2</sub> / dry extinguishing powder

**Unsuitable extinguishing media:** Full water jet.

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

In case of fire may be liberated: carbon dioxide and carbon monoxide

#### 5.3 Advice for fire-fighters

Cool closed containers exposed to fire with water spray jet.

Special protective equipment: Wear full protective suit with self-contained breathing apparatus.

Collect contaminated fire extinguishing water separately. Do not allow entering drains, surface water or soil.

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### SECTION 6. Accidental release measures

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

Avoid inhalation and contact with skin and eyes. Wear protection equipment.

#### 6.2 Environmental precautions

Large quantities of product should not get into drains, surface- and groundwater.

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

Absorb with an absorbent material and dispose of according to local regulations.

#### 6.4 Reference to other sections

Observe protective measures in sections 8 and disposal considerations in section 13.

### SECTION 7. Handling and Storage

#### 7.1 Precautions for safe handling

##### Advices on safe handling

Wear protective clothing. Open carefully and keep container closed when not in use.

Use only in well-ventilated areas or provide local extraction.

Avoid release into the environment.

General hygiene measures:

- Eating, drinking or smoking is prohibited in areas, where work is performed.
- Wash your hands after use.
- Take off contaminated clothing and protective equipment before entering eating areas.

##### Precautions against fire and explosion

Flammable vapour/air-mixtures may be formed. Use only spark-/explosionproof appliances in danger zones.

Ground/bond container and receiving equipment. Take precautionary measures against static discharges.

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

##### Requirements for storage rooms and vessels

Store in tightly closed original container in a cool and dry place. Store locked up.

Storage compatibility and limitations according to TRGS 510 must be observed.

#### 7.3 Specific end uses

Observe product information sheet.

eCl@ss (8.0): 34-07-02-90 / GISCODE: GD0

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### SECTION 8. Exposure controls / Personal protection

#### 8.1 Control parameters

##### Workplace exposure limits according to TRGS 900

Substances: Hydrocarbon mixture, C9-C15 Aliphatics

Occupational exposure limit: 600 mg/m<sup>3</sup>

Top limiting and exceedance factor: 2 (II)

#### 8.2 Exposure controls / Personal protection equipment

##### Appropriate engineering controls

See section 7. No additional measures necessary.

##### Personal protection equipment

**Respiratory protection:** In case of excessive vapours wear a respirator mask filter A2.

**Hand protection:** Tested gloves with breakthrough time  $\geq$  8 hours made from NBR (0.35 mm) or FKM (0.4 mm)

**Eye protection:** use safety goggles

**Protective clothing:** usual work clothes

##### General health and safety measures

Respect good personal hygiene. Do not drink, eat or smoke while handling.

##### Environmental exposure controls

See section 6 and 7.

### SECTION 9. Physical and chemical properties

#### 9.1 Information on basic physical and chemical properties

##### General information

<b>Physical state:</b>	liquid
<b>Colour:</b>	yellowish
<b>Odour:</b>	characteristic
<b>pH value (undiluted):</b>	not applicable
<b>Melting point/Freezing point (°C):</b>	< -20
<b>Boiling temperature (°C):</b>	> 180
<b>Flashpoint (°C):</b>	> 61
<b>Flammability (solid, gas):</b>	not applicable
<b>Lower explosion limit:</b>	not determined
<b>Upper explosion limit:</b>	not determined
<b>Vapour pressure (hPa):</b>	approx. 3.6

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Relative vapor density:	not determined
Density (20 °C):	approx. 0.77
Solubility:	not mixable with water
Partition coefficient (KOW):	not determined
Ignition temperature:	not determined
Decomposition temperature:	not determined
Dynamic viscosity (mPas):	< 10
Particle properties:	not applicable

### 9.2 Other information

#### Other safety characteristics

No other physical and chemical data has been recorded.

## SECTION 10. Stability and Reactivity

### 10.1 Reactivity

Mixture of solvents, no particular reactivity expected.

### 10.2 Chemical stability

Stable under the specified storage conditions.

### 10.3 Possibility of hazardous reactions

There are expected no hazardous reactions for intended use.

### 10.4 Conditions to avoid

Avoid heat, direct sunlight, electrostatic discharges and sparks.  
Note the information about handling and storage in section 7.

### 10.5 Incompatible materials

Different plastics can be attacked.

### 10.6 Hazardous decomposition products

No hazardous decomposition products known.

## SECTION 11. Toxicological information

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

#### Acute toxicity

Permethrin

LD50 oral = 554 mg/kg body weight (rat) (OECD 401)

LC50 inhalative (4h) > 4638 mg/l (rat) (OECD 403)

The Aerosol was tested.

Acute Toxicity Estimate of the mixture:

ATE mix (oral) > 2000 mg/kg body weight

ATE mix (inhalative, vapour) > 20 mg/l

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### **Skin Corrosion / Irritation**

Mixture does not contain any substances with skin irritation / corrosion.

### **Serious Eye Damage / Irritation**

The mixture does not meet the criteria for classification.

### **Sensitisation**

Sensitising by skin contact.

### **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**

Mixture does not contain any substances which are classified as carcinogenic, mutagenic or toxic for reproduction.

### **Specific target organ toxicity (single exposure)**

Mixture does not contain any substances with specific target organ toxicity.

### **Specific target organ toxicity (repeated exposure)**

Mixture does not contain any substances with specific target organ toxicity.

### **Aspiration hazard**

May be fatal if swallowed and enters airways.

## **11.2 Information on other hazards**

### **Endocrine disrupting properties**

This mixture does not contain any substances which are identified as endocrine disrupting.

### **Other information**

No further data available.

## **SECTION 12. Ecological information**

The available data refer to the substances in the mixture. The mixture as a whole has not been tested.

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### 12.1 Toxicity

Permethrin 25/75

Acute toxicity fishes:

LC50 (96 h) = 8.9 µg/L (Poecilia Reticulate) (OECD 203)

Acute toxicity crustacea:

EC50 (48 h) = 0.00127 mg/L (Daphnia magna) (OECD 202)

Acute toxicity algae:

EC50 (72 h) > 1.13 mg/L (Pseudokirchneriella Subcapitata) (OECD 201)

Long-term toxicity fish:

NOEC (35 d) = 0.00041 mg/L (Danio Rerio) (OECD 210)

Long-term toxicity crustacea:

NOEC (21 d) = 0.0047 µg/L (Daphnia magna) (OECD 211)

Long-term toxicity algae:

NOEC (72 h) > 0.0131 mg/L (Pseudokirchneriella subcapitata) (OECD 201)

Tetramethrin

Acute toxicity fishes:

LC50 (96 h) = 0.033 mg/L (Brachydanio rerio) (Literature)

Acute toxicity crustacea:

EC50 (48 h) = 0.47 mg/L (Daphnia Magna) (Literature)

Acute toxicity algae:

EC50 (72 h) = 1.36 mg/L (Scenedesmus subspicatus) (Literature)

Long-term toxicity algae:

NOEC (72 h) = 0.72 mg/L (Scenedesmus subspicatus) (Literature)

Piperonyl butoxide

Acute toxicity fishes:

LC50 (96 h) = 3.94 mg/L (Cyprinodon variegatus) (Literature)

Acute toxicity crustacea:

EC50 (48 h) = 0.51 mg/L (Daphnia Magna) (Literature)

Acute toxicity algae:

EC50 (72 h) = 3.89 mg/L (Selenastrum capricornutum) (Literature)

Long-term toxicity fish:

NOEC = 0.053 mg/L (Cyprinodon variegatus) (Literature)

Long-term toxicity crustacea:

NOEC = Wert 0.03 mg/L (Daphnia Magna) (Literature)

Long-term toxicity algae:

NOEC = 0.824 mg/L (Selenastrum capricornutum) (Literature)

### 12.2 Persistence and degradability

Hydrocarbons, C11-14, aliphatic, isoalkane, cyclic, < 2% aromatics

No further relevant information available.

2-(2-Butoxyethoxy)-ethanol

Fast photochemical oxidation in the air. Readily biodegradable (>90%, OECD 301E).

Permethrin 25/75

Not readily biodegradable

Tetramethrin

Inherent biodegradable

Piperonyl butoxide

Not readily biodegradable



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### 12.3 Bioaccumulative potential

Hydrocarbons, C11-14, aliphatic, isoalkane, cyclic, < 2% aromatics  
No further relevant information available.

2-(2-Butoxyethoxy)-ethanol  
Not expected to bioaccumulate.

Permethrin 25/75  
Bioaccumulation is potentially possible.

Tetramethrin  
No further relevant information available.

Piperonyl butoxide  
No further relevant information available.

### 12.4 Mobility in soil

Hydrocarbons, C11-14, aliphatic, isoalkane, cyclic, < 2% aromatics  
No further relevant information available.

2-(2-Butoxyethoxy)-ethanol  
No further relevant information available.

Permethrin 25/75  
This substance shows little mobility in the ground.

Tetramethrin  
Substance is immobile and preferably remains in the ground.

Piperonyl butoxide  
This substance shows low to moderate mobility in the ground.

### 12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances which are identified as PBT or vPvB.

### 12.6 Endocrine disrupting properties

This mixture does not contain any substances which are identified as endocrine disrupting.

### 12.7 Other adverse effects

The mixture does not contain any substances which are listed in Regulation (EC) 1005/2009 on substances that deplete the ozone layer.

## SECTION 13. Disposal considerations

### 13.1 Waste treatment methods

#### Recommendation

Cleaning concentrates should not be disposed of via wastewater. Hazardous waste according to European list of wastes. Dispose of in accordance with local, official regulations.

#### Waste codes/waste designations according to EWC

20 01 19 (Pesticides)

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### Packaging

#### Contaminated package

Hazardous waste according to European list of wastes. Dispose of in accordance with local, official regulations. Waste code 15 01 10 (packaging containing residues of or contaminated by hazardous substances)

#### Cleaned package

Non contaminated and clean packagings can be used for recycling.

## SECTION 14. Transport information

### 14.1 UN number or ID number

3082

### 14.2 UN Proper shipping name:

#### ADR / RID:

Environmentally hazardous substance, liquid, n.o.s. (Permethrin)

#### IMDG-Code / ICAO-TI / IATA-DGR:

Environmentally hazardous substance, liquid, n.o.s. (Permethrin)

### 14.3 Transport hazard class(es)

#### ADR / RID / IMDG-Code / ICAO-TI / IATA-DGR:

9

### 14.4 Packing group

III

### 14.5 Environmental hazards

environmentally hazardous

### 14.6 Special precautions for user

See section 6 and 8.

### 14.7 Maritime transport in bulk according to IMO instruments

not applicable

## SECTION 15. Regulatory information

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

#### EU regulations

Subject to the Regulation (EC) No. 528/2012 concerning the making available on the market and use of biocidal products.

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### National regulations

Maternity Protection Act (MuSchG): not applicable.

Major Accidents Ordinance (12. BImSchV): not applicable.

Observe employment restrictions for young people (§ 22 JArbSchG).

Water hazard class: WGK 3 (in accordance with German regulation AwSV)

### 15.2 Chemical Safety Assessment

For this mixture a chemical safety assessment has not been carried out.

## SECTION 16. Other information

### Indication of changes

Revised sections: 1, 15

### Hazard statements referred to in Section 2 and 3 i.a.w. Regulation (EC) No 1272/2008

Acute Tox. 4, H302 = Acute toxicity, category 4, Harmful if swallowed.

Asp. Tox. 1, H304 = Aspiration hazard, category 1, May be fatal if swallowed and enters airways.

Skin Sens. 1A/B, H317 = Skin sensitisation, category 1A/B, May cause an allergic skin reaction.

Eye Irrit. 2, H319 = Eye damage / irritation, category 2, Causes serious eye irritation.

Acute Tox. 4, H332 = Acute toxicity, category 4, Harmful if inhaled.

Carc. 2, H351 = Carcinogenicity, category 2, Suspected of causing cancer.

STOT SE 2, H371 = Specific target organ toxicity (single exposure), category 2, May cause damage to organs.

Aquatic Acute 1, H400 = Hazardous to the aquatic environment, acute, category 1, Very toxic to aquatic life.

Aquatic Chronic 1, H410 = Hazardous to the aquatic environment, chronic, category 1, Very toxic to aquatic life with long lasting effects.

### Key literature references and sources for data

REACH Regulation (EC) No. 1907/2006

CLP Regulation (EC) No. 1272/2008

All data were taken from the safety data sheets of our sub-suppliers, where available. Missing data were taken from the Substance Database GESTIS of the Institute for Occupational Safety and Health of the German statutory accident insurance or from the database of the European Chemicals Agency (ECHA).

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### Legend

ABEK Filter designation  
ADR European Agreement concerning the International Carriage of Dangerous Goods by Road  
ATE mix Acute Toxicity Estimates for mixtures  
AVV European waste list regulation  
AwSV Ordinance on systems for handling water-polluting substances  
Butyl Butyl rubber  
CAS (Registration number) Chemical Abstracts Service  
CLP Regulation on classification, labelling and packaging of substances and mixtures  
CMR Carcinogenicity, mutagenicity, reproductive toxicity  
CR Chloroprene rubber  
EC50 Median effective concentration  
EG (Registration number) European Union  
ErC50 Median effective concentration  
FIFRA Federal Insecticide, Fungicide and Rodenticide Act  
FKM Fluorocarbon rubber  
GISCODE Labelling system of the professional associations in the construction industry  
IATA-DGR International Air Transport Association - Dangerous Goods Regulations  
IBC International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk  
ICAO-TI Technical Instructions For The Safe Transport of Dangerous Goods by Air  
IMDG International Maritime Dangerous Goods  
LC50 Lethal concentration of a substance leading to the death of 50% of the exposed organisms  
LD50 Lethal dose of a substance that leads to death of 50% of the organisms exposed to it  
MARPOL International Convention for the Prevention of Pollution from Ships  
NBR Acrylonitrile butadiene rubber  
NOEC No Observed Effect Concentration  
NOEL No Observed Effect Level  
NR Natural rubber  
OECD Organisation for Economic Co-operation and Development  
PBT Persistent, bioaccumulating, toxic  
PET Polyethylene terephthalate  
PTFE Polytetrafluoroethylene  
PVC Polyvinyl chloride  
REACH Regulation concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals  
RID Convention concerning International Carriage by Rail  
TRGS Technical Rules for Hazardous Substances  
UN United Nations  
US-EPA United States Environmental Protection Agency  
VOC Volatile Organic Compounds  
vPvB Very persistent, very bioaccumulating  
WGK Water hazard class

### Further information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal.