

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

#### 1.1. Product identifier

Product form : Mixture  
Trade name : K-Obiol ULV 6  
Type of product : Insecticide  
Product group : Phytosanitary

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

##### 1.2.1. Relevant identified uses

Main use category : Professional use  
Use of the substance/mixture : Insecticide  
Function or use category : Pesticides

##### 1.2.2. Uses advised against

No additional information available

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

Armosa Tech  
Rue des Tuiliers 1  
4480 Engis - Belgique  
T +32 (0)85 519 519 - F +32 (0)85 519 510  
[msds@armosa.tech](mailto:msds@armosa.tech) - [www.armosa.tech](http://www.armosa.tech)

#### 1.4. Emergency telephone number

No additional information available

### SECTION 2: Hazards identification

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

Classification according to Regulation (EC) No. 1272/2008 [CLP] Mixtures/Substances: SDS EU > 2015: According to Regulation (EU) 2015/830, 2020/878 (REACH Annex II)

Hazardous to the aquatic environment – Acute Hazard, Category 1 H400  
Hazardous to the aquatic environment – Chronic Hazard, Category 1 H410  
Full text of H-statements: see section 16

##### Adverse physicochemical, human health and environmental effects

Very toxic to aquatic life with long lasting effects.

#### 2.2. Label elements

##### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS09

Signal word (CLP) : Warning  
Hazard statements (CLP) : H410 - Very toxic to aquatic life with long lasting effects.  
Precautionary statements (CLP) : P102 - Keep out of reach of children.  
P270 - Do not eat, drink or smoke when using this product.  
P273 - Avoid release to the environment.

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according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

EUH-statements	P391 - Collect spillage. P501 - Dispose of contents/container to a hazardous or special waste collection point. : EUH210 - Safety data sheet available on request. EUH401 - To avoid risks to human health and the environment, comply with the instructions for use.
Extra phrases	: Do not contaminate water with the product or its container (Do not clean application equipment near surface water/Avoid contamination via drains from farmyards and roads).

### 2.3. Other hazards

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Piperonyl butoxide	CAS-No.: 51-03-6 EC-No.: 200-076-7 REACH-no: 01-2119537431-46	6.1	Aquatic Acute 1, H400 Aquatic Chronic 1, H410
deltamethrin (ISO); (S)- $\alpha$ -cyano-3-phenoxybenzyl(1R, 3R)-3-(2,2-dibromovinyl)-2,2-dimethylcyclopropanecarboxylate	CAS-No.: 52918-63-5 EC-No.: 258-256-6 EC Index-No.: 607-319-00-X	0.68	Acute Tox. 3 (Inhalation), H331 Acute Tox. 3 (Oral), H301 Aquatic Acute 1, H400 (M=1000000) Aquatic Chronic 1, H410 (M=1000000)

Full text of H- and EUH-statements: see section 16

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash skin with plenty of water.
First-aid measures after eye contact	: Rinse eyes with water as a precaution.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.

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

No additional information available

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

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media	: Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media	: Do not use water jet.

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

Hazardous decomposition products in case of fire : Toxic fumes may be released.

### 5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

## SECTION 6: Accidental release measures

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

#### 6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area.

#### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

### 6.2. Environmental precautions

Avoid release to the environment.

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

For containment : Collect spillage.  
Methods for cleaning up : Take up liquid spill into absorbent material.  
Other information : Dispose of materials or solid residues at an authorized site.

### 6.4. Reference to other sections

For further information refer to section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment.  
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

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

Storage conditions : Store in a well-ventilated place. Keep cool.

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### 8.1.1. National occupational exposure and biological limit values

No additional information available

#### 8.1.2. Recommended monitoring procedures

No additional information available

#### 8.1.3. Air contaminants formed

No additional information available

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### 8.1.4. DNEL and PNEC

No additional information available

### 8.1.5. Control banding

No additional information available

## 8.2. Exposure controls

### 8.2.1. Appropriate engineering controls

Ensure good ventilation of the work station.

### 8.2.2. Personal protection equipment



#### 8.2.2.1. Eye and face protection

Safety glasses

#### 8.2.2.2. Skin protection

Wear suitable protective clothing

Protective gloves

#### 8.2.2.3. Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment

#### 8.2.2.4. Thermal hazards

No additional information available

### 8.2.3. Environmental exposure controls

Avoid release to the environment.

## SECTION 9: Physical and chemical properties

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

Physical state	: Liquid
Colour	: Light yellow.
Odour	: Characteristic. Slight.
Odour threshold	: Not available
Melting point	: Not applicable
Freezing point	: Not available
Boiling point	: Not available
Flammability	: Not applicable
Explosive properties	: Not explosive.
Explosive limits	: Not available
Lower explosive limit (LEL)	: Not available
Upper explosive limit (UEL)	: Not available
Flash point	: > 137 °C
Auto-ignition temperature	: 245 °C

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Decomposition temperature	: Not available
pH	: Not available
Viscosity, kinematic	: Not available
Solubility	: Insoluble.
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50 °C	: Not available
Density	: ≈ 0.88 g/cm <sup>3</sup>
Relative density	: Not available
Relative vapour density at 20 °C	: Not available
Particle size	: Not applicable
Particle size distribution	: Not applicable
Particle shape	: Not applicable
Particle aspect ratio	: Not applicable
Particle aggregation state	: Not applicable
Particle agglomeration state	: Not applicable
Particle specific surface area	: Not applicable
Particle dustiness	: Not applicable

### 9.2. Other information

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

No additional information available

#### 9.2.2. Other safety characteristics

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

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

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

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K-Obiol ULV 6	
LD50 oral rat	> 2000 mg/kg
LD50 dermal rabbit	> 4000 mg/kg
LC50 Inhalation - Rat	> 5.04 mg/l/4h

deltamethrin (ISO); (S)- $\alpha$ -cyano-3-phenoxybenzyl(1R, 3R)-3-(2,2-dibromovinyl)-2,2-dimethylcyclopropanecarboxylate (52918-63-5)	
LD50 oral rat	9.36 mg/kg
LD50 dermal rabbit	2000 mg/kg
LC50 Inhalation - Rat	0.785 g/m <sup>3</sup> 2h

Piperonyl butoxide (51-03-6)	
LD50 oral rat	4570 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 Inhalation - Rat	> 5.9 mg/l/4h

Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified

deltamethrin (ISO); (S)- $\alpha$ -cyano-3-phenoxybenzyl(1R, 3R)-3-(2,2-dibromovinyl)-2,2-dimethylcyclopropanecarboxylate (52918-63-5)	
IARC group	3 - Not classifiable

Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

### 11.2. Information on other hazards

No additional information available

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general	: Very toxic to aquatic life with long lasting effects.
Hazardous to the aquatic environment, short-term (acute)	: Very toxic to aquatic life.
Hazardous to the aquatic environment, long-term (chronic)	: Very toxic to aquatic life with long lasting effects.

deltamethrin (ISO); (S)- $\alpha$ -cyano-3-phenoxybenzyl(1R, 3R)-3-(2,2-dibromovinyl)-2,2-dimethylcyclopropanecarboxylate (52918-63-5)	
LC50 - Fish [1]	0.25 $\mu$ g/l <i>Oncorhynchus mykiss</i>
LC50 - Fish [2]	2 $\mu$ g/l <i>Cyprinus carpio</i>
EC50 - Crustacea [1]	0.12 $\mu$ g/l <i>Daphnia magna</i>

Piperonyl butoxide (51-03-6)	
LC50 - Fish [1]	3.94 mg/l <i>Cyprinodon variegatus</i>
EC50 - Crustacea [1]	0.51 mg/l <i>Daphnia magna</i>

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Piperonyl butoxide (51-03-6)	
EC50 72h - Algae [1]	3.89 mg/l <i>Selenastrum capricornutum</i>
ErC50 algae	3.89 mg/l <i>Selenastrum capricornutum</i>
LOEC (acute)	0.047 mg/l <i>Daphnia magna</i>
LOEC (chronic)	0.42 mg/l <i>Pimephales promelas</i>
NOEC (acute)	0.824 mg/l <i>Selenastrum capricornutum</i>
NOEC chronic fish	0.053 mg/l <i>Cyprinodon variegatus</i>
NOEC chronic crustacea	0.03 mg/l <i>Daphnia magna</i>

### 12.2. Persistence and degradability

Piperonyl butoxide (51-03-6)	
Persistence and degradability	Not biodegradable.

### 12.3. Bioaccumulative potential

deltamethrin (ISO); (S)- $\alpha$ -cyano-3-phenoxybenzyl(1R, 3R)-3-(2,2-dibromovinyl)-2,2-dimethylcyclopropanecarboxylate (52918-63-5)	
BCF - Fish [1]	0.0000599 mg/l <i>Oncorhynchus mykiss</i>
Bioconcentration factor (BCF REACH)	817
Partition coefficient n-octanol/water (Log Pow)	4.6 25°C

Piperonyl butoxide (51-03-6)	
BCF - Fish [1]	91 – 380 mg/kg
Partition coefficient n-octanol/water (Log Pow)	4.8 (pH 6,5)

### 12.4. Mobility in soil

Piperonyl butoxide (51-03-6)	
Partition coefficient n-octanol/water (Log Koc)	3.57
Ecology - soil	Low mobility (soil).

### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Endocrine disrupting properties

No additional information available

### 12.7. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

## SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

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### 14.1. UN number or ID number

UN-No. (ADR)	: UN 3082
UN-No. (IMDG)	: UN 3082
UN-No. (IATA)	: UN 3082
UN-No. (ADN)	: UN 3082
UN-No. (RID)	: UN 3082

### 14.2. UN proper shipping name

Proper Shipping Name (ADR)	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Proper Shipping Name (IMDG)	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Proper Shipping Name (IATA)	: Environmentally hazardous substance, liquid, n.o.s.
Proper Shipping Name (ADN)	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Proper Shipping Name (RID)	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Transport document description (ADR)	: UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (deltamethrin (ISO); (S)- $\alpha$ -cyano-3-phenoxybenzyl(1R, 3R)-3-(2,2-dibromovinyl)-2,2-dimethylcyclopropanecarboxylate ; Piperonyl butoxide), 9, III, (-)
Transport document description (IMDG)	: UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (deltamethrin (ISO); (S)- $\alpha$ -cyano-3-phenoxybenzyl(1R, 3R)-3-(2,2-dibromovinyl)-2,2-dimethylcyclopropanecarboxylate ; Piperonyl butoxide), 9, III, MARINE POLLUTANT
Transport document description (IATA)	: UN 3082 Environmentally hazardous substance, liquid, n.o.s. (deltamethrin (ISO); (S)- $\alpha$ -cyano-3-phenoxybenzyl(1R, 3R)-3-(2,2-dibromovinyl)-2,2-dimethylcyclopropanecarboxylate ; Piperonyl butoxide), 9, III
Transport document description (ADN)	: UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (deltamethrin (ISO); (S)- $\alpha$ -cyano-3-phenoxybenzyl(1R, 3R)-3-(2,2-dibromovinyl)-2,2-dimethylcyclopropanecarboxylate ; Piperonyl butoxide), 9, III
Transport document description (RID)	: UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (deltamethrin (ISO); (S)- $\alpha$ -cyano-3-phenoxybenzyl(1R, 3R)-3-(2,2-dibromovinyl)-2,2-dimethylcyclopropanecarboxylate ; Piperonyl butoxide), 9, III

### 14.3. Transport hazard class(es)

Transport hazard class(es) (ADR)	: 9
Danger labels (ADR)	: 9



Transport hazard class(es) (IMDG)	: 9
Danger labels (IMDG)	: 9



Transport hazard class(es) (IATA)	: 9
Danger labels (IATA)	: 9

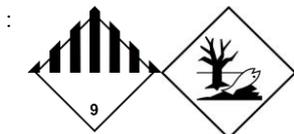


# K-Obiol ULV 6

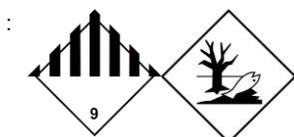
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Transport hazard class(es) (ADN) : 9  
Danger labels (ADN) : 9



Transport hazard class(es) (RID) : 9  
Danger labels (RID) : 9



### 14.4. Packing group

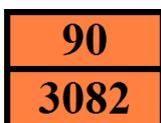
Packing group (ADR) : III  
Packing group (IMDG) : III  
Packing group (IATA) : III  
Packing group (ADN) : III  
Packing group (RID) : III

### 14.5. Environmental hazards

Dangerous for the environment : Yes  
Marine pollutant : Yes  
Other information : No supplementary information available

### 14.6. Special precautions for user

Classification code (ADR) : M6  
Special provisions (ADR) : 274, 335, 375, 601  
Limited quantities (ADR) : 5I  
Excepted quantities (ADR) : E1  
Packing instructions (ADR) : P001, IBC03, LP01, R001  
Special packing provisions (ADR) : PP1  
Mixed packing provisions (ADR) : MP19  
Portable tank and bulk container instructions (ADR) : T4  
Portable tank and bulk container special provisions (ADR) : TP1, TP29  
Tank code (ADR) : LGBV  
Vehicle for tank carriage : AT  
Transport category (ADR) : 3  
Special provisions for carriage - Packages (ADR) : V12  
Special provisions for carriage - Loading, unloading and handling (ADR) : CV13  
Hazard identification number (Kemler No.) : 90  
Orange plates :



Tunnel restriction code (ADR) : -

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Special provisions (IMDG)	: 274, 335, 969
Limited quantities (IMDG)	: 5 L
Excepted quantities (IMDG)	: E1
Packing instructions (IMDG)	: LP01, P001
Special packing provisions (IMDG)	: PP1
IBC packing instructions (IMDG)	: IBC03
Tank instructions (IMDG)	: T4
Tank special provisions (IMDG)	: TP1, TP29
EmS-No. (Fire)	: F-A
EmS-No. (Spillage)	: S-F
Stowage category (IMDG)	: A
PCA Excepted quantities (IATA)	: E1
PCA Limited quantities (IATA)	: Y964
PCA limited quantity max net quantity (IATA)	: 30kgG
PCA packing instructions (IATA)	: 964
PCA max net quantity (IATA)	: 450L
CAO packing instructions (IATA)	: 964
CAO max net quantity (IATA)	: 450L
Special provisions (IATA)	: A97, A158, A197, A215
ERG code (IATA)	: 9L
Classification code (ADN)	: M6
Special provisions (ADN)	: 274, 335, 375, 601
Limited quantities (ADN)	: 5 L
Excepted quantities (ADN)	: E1
Equipment required (ADN)	: PP
Number of blue cones/lights (ADN)	: 0
Classification code (RID)	: M6
Special provisions (RID)	: 274, 335, 375, 601
Limited quantities (RID)	: 5L
Excepted quantities (RID)	: E1
Packing instructions (RID)	: P001, IBC03, LP01, R001
Special packing provisions (RID)	: PP1
Mixed packing provisions (RID)	: MP19
Portable tank and bulk container instructions (RID)	: T4
Portable tank and bulk container special provisions (RID)	: TP1, TP29
Tank codes for RID tanks (RID)	: LGBV
Transport category (RID)	: 3
Special provisions for carriage – Packages (RID)	: W12
Special provisions for carriage - Loading, unloading and handling (RID)	: CW13, CW31
Colis express (express parcels) (RID)	: CE8
Hazard identification number (RID)	: 90

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

Not applicable

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### SECTION 15: Regulatory information

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

##### 15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

##### 15.1.2. National regulations

No additional information available

#### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

### SECTION 16: Other information

Full text of H- and EUH-statements	
Acute Tox. 3 (Inhalation)	Acute toxicity (inhal.), Category 3
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1
H301	Toxic if swallowed.
H331	Toxic if inhaled.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
EUH210	Safety data sheet available on request.
EUH401	To avoid risks to human health and the environment, comply with the instructions for use.

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.