

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

#### 1.1. Product identifier

Product form	: Mixture
Trade name	: FLYSPRAY
Type of product	: Biocidal products (e.g. Disinfectants, pest control)
Vaporizer	: aerosol
Product group	: Biocide

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

##### 1.2.1. Relevant identified uses

Intended for general public	
Main use category	: Intended for general public
Use of the substance/mixture	: Insecticide
Function or use category	: Pesticides, non-agricultural (Biocides)

##### 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 Tuilliers 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)

Aerosol, Category 1	H222;H229
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

Pressurised container: May burst if heated. Extremely flammable aerosol. 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)



Signal word (CLP)

: Danger

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according to Regulation (EU) 2015/830

Hazard statements (CLP)	: H222 - Extremely flammable aerosol. H229 - Pressurised container: May burst if heated. H410 - Very toxic to aquatic life with long lasting effects.
Precautionary statements (CLP)	: P102 - Keep out of reach of children. P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P211 - Do not spray on an open flame or other ignition source. P251 - Do not pierce or burn, even after use. P273 - Avoid release to the environment. P391 - Collect spillage. P410+P412 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C. P501 - Dispose of contents and container to a hazardous or special waste collection point.

### 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 (Active substance (Biocide))	CAS-No.: 51-03-6 EC-No.: 200-076-7 REACH-no: 01-2119537431-46	3	Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Chrysanthemum cinerariaefolium, extract from open and mature flowers of Tanacetum cinerariifolium obtained with hydrocarbon solvents (Active substance (Biocide))	CAS-No.: 89997-63-7 EC-No.: 289-699-3	0.4	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation), H332 Asp. Tox. 1, H304 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410

Product subject to CLP Article 1.1.3.7. The disclosure rules of the components is modified in this case.

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.

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### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

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

Fire hazard : Extremely flammable aerosol.  
Explosion hazard : Pressurised container: May burst if heated.  
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. No open flames, no sparks, and no smoking.

##### 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 : Mechanically recover the product.  
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. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use.  
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 : Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F. Store in a well-ventilated place. Keep cool.

#### 7.3. Specific end use(s)

No additional information available

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### 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

##### 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.

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Appearance	: Liquid.
Odour	: Not available
Odour threshold	: Not available
Melting point	: Not applicable
Freezing point	: Not available
Boiling point	: < 35 °C
Flammability	: Extremely flammable aerosol.
Explosive properties	: Pressurised container: May burst if heated.
Explosive limits	: Not available
Lower explosive limit (LEL)	: Not available
Upper explosive limit (UEL)	: Not available
Flash point	: < 23 °C
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
pH	: 5.64
Viscosity, kinematic	: 1.94 mm <sup>2</sup> /s (20°C)
Viscosity, dynamic	: 1.37 mPa·s (20°C)
Solubility	: Not available
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50 °C	: Not available
Density	: Not available
Relative density	: 0.7057
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

% of flammable ingredients : 0

#### 9.2.2. Other safety characteristics

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Extremely flammable aerosol. Pressurised container: May burst if heated.

### 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

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

### 10.5. Incompatible materials

No additional information available

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### 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

#### 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

#### Chrysanthemum cinerariaefolium, extract from open and mature flowers of Tanacetum cinerariifolium obtained with hydrocarbon solvents (89997-63-7)

LD50 oral rat	> 2000 mg/kg
LD50 dermal rabbit	> 5000 mg/kg
LC50 Inhalation - Rat	> 202 mg/l/4h

Skin corrosion/irritation : Not classified  
pH: 5.64  
Serious eye damage/irritation : Not classified  
pH: 5.64  
Respiratory or skin sensitisation : Not classified  
Germ cell mutagenicity : Not classified  
Carcinogenicity : Not classified  
Reproductive toxicity : Not classified  
STOT-single exposure : Not classified  
STOT-repeated exposure : Not classified  
Aspiration hazard : Not classified

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Vaporizer	aerosol
Viscosity, kinematic	1.94 mm <sup>2</sup> /s (20°C)

### 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.

#### 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 Selenastrum capricornutum
ErC50 algae	3.89 mg/l Selenastrum capricornutum
LOEC (acute)	0.047 mg/l Daphnia magna
LOEC (chronic)	0.42 mg/l Pimephales promelas
NOEC (acute)	0.824 mg/l Selenastrum capricornutum
NOEC chronic fish	0.053 mg/l Cyprinodon variegatus
NOEC chronic crustacea	0.03 mg/l Daphnia magna

Chrysanthemum cinerariaefolium, extract from open and mature flowers of Tanacetum cinerariifolium obtained with hydrocarbon solvents (89997-63-7)	
LC50 - Fish [1]	0.0052 mg/l Oncorhynchus mykiss
LC50 - Fish [2]	0.01 mg/l Lepomis macrochirus
LC50 - Other aquatic organisms [1]	0.016 mg/l Pimephales promelas
EC50 - Crustacea [1]	0.012 mg/l Daphnia magna

### 12.2. Persistence and degradability

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

Chrysanthemum cinerariaefolium, extract from open and mature flowers of Tanacetum cinerariifolium obtained with hydrocarbon solvents (89997-63-7)	
Persistence and degradability	May cause long-term adverse effects in the environment.

### 12.3. Bioaccumulative potential

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

Chrysanthemum cinerariaefolium, extract from open and mature flowers of Tanacetum cinerariifolium obtained with hydrocarbon solvents (89997-63-7)	
Partition coefficient n-octanol/water (Log Pow)	4.3 – 5.9
Bioaccumulative potential	Not established.

### 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

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### 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

#### 14.1. UN number or ID number

UN-No. (ADR) : UN 1950  
UN-No. (IMDG) : UN 1950  
UN-No. (IATA) : UN 1950  
UN-No. (ADN) : UN 1950  
UN-No. (RID) : UN 1950

#### 14.2. UN proper shipping name

Proper Shipping Name (ADR) : AEROSOLS  
Proper Shipping Name (IMDG) : AEROSOLS  
Proper Shipping Name (IATA) : Aerosols, flammable  
Proper Shipping Name (ADN) : AEROSOLS  
Proper Shipping Name (RID) : AEROSOLS  
Transport document description (ADR) : UN 1950 AEROSOLS, 2.1, (D), ENVIRONMENTALLY HAZARDOUS  
Transport document description (IMDG) : UN 1950 AEROSOLS, 2.1, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS  
Transport document description (IATA) : UN 1950 Aerosols, flammable, 2.1, ENVIRONMENTALLY HAZARDOUS  
Transport document description (ADN) : UN 1950 AEROSOLS, 2.1, ENVIRONMENTALLY HAZARDOUS  
Transport document description (RID) : UN 1950 AEROSOLS, 2.1, ENVIRONMENTALLY HAZARDOUS

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

Transport hazard class(es) (ADR) : 2.1  
Danger labels (ADR) : 2.1



Transport hazard class(es) (IMDG) : 2.1  
Danger labels (IMDG) : 2.1



Transport hazard class(es) (IATA) : 2.1  
Danger labels (IATA) : 2.1



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Transport hazard class(es) (ADN) : 2.1  
Danger labels (ADN) : 2.1



Transport hazard class(es) (RID) : 2.1  
Danger labels (RID) : 2.1



### 14.4. Packing group

Packing group (ADR) : Not applicable  
Packing group (IMDG) : Not applicable  
Packing group (IATA) : Not applicable  
Packing group (ADN) : Not applicable  
Packing group (RID) : Not applicable

### 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) : 5F  
Special provisions (ADR) : 190, 327, 344, 625  
Limited quantities (ADR) : 1I  
Excepted quantities (ADR) : E0  
Packing instructions (ADR) : P207, LP200  
Special packing provisions (ADR) : PP87, RR6, L2  
Mixed packing provisions (ADR) : MP9  
Transport category (ADR) : 2  
Special provisions for carriage - Packages (ADR) : V14  
Special provisions for carriage - Loading, unloading and handling (ADR) : CV9, CV12  
Special provisions for carriage - Operation (ADR) : S2  
Tunnel restriction code (ADR) : D

Special provisions (IMDG) : 63, 190, 277, 327, 344, 381, 959  
Packing instructions (IMDG) : P207, LP200  
Special packing provisions (IMDG) : PP87, L2  
EmS-No. (Fire) : F-D  
EmS-No. (Spillage) : S-U  
Stowage category (IMDG) : None  
Stowage and handling (IMDG) : SW1, SW22  
Segregation (IMDG) : SG69

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PCA Excepted quantities (IATA)	: E0
PCA Limited quantities (IATA)	: Y203
PCA limited quantity max net quantity (IATA)	: 30kgG
PCA packing instructions (IATA)	: 203
PCA max net quantity (IATA)	: 75kg
CAO packing instructions (IATA)	: 203
CAO max net quantity (IATA)	: 150kg
Special provisions (IATA)	: A145, A167, A802
ERG code (IATA)	: 10L

Classification code (ADN)	: 5F
Special provisions (ADN)	: 190, 327, 344, 625
Limited quantities (ADN)	: 1 L
Excepted quantities (ADN)	: E0
Equipment required (ADN)	: PP, EX, A
Ventilation (ADN)	: VE01, VE04
Number of blue cones/lights (ADN)	: 1

Classification code (RID)	: 5F
Special provisions (RID)	: 190, 327, 344, 625
Limited quantities (RID)	: 1L
Excepted quantities (RID)	: E0
Packing instructions (RID)	: P207, LP200
Special packing provisions (RID)	: PP87, RR6, L2
Mixed packing provisions (RID)	: MP9
Transport category (RID)	: 2
Special provisions for carriage – Packages (RID)	: W14
Special provisions for carriage - Loading, unloading and handling (RID)	: CW9, CW12
Colis express (express parcels) (RID)	: CE2
Hazard identification number (RID)	: 23

### 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

#### 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

This product contains biocidal products

Type of product (Biocide)	: 18 - Insecticides, acaricides and products to control other arthropods
Authorisation number	: BE-REG-01209
Contains	: Piperonyl butoxide (3.00 %); Chrysanthemum cinerariaefolium, extract from open and mature flowers of Tanacetum cinerariifolium obtained with hydrocarbon solvents (0.40 %)

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### 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

Abbreviations and acronyms	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number

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Abbreviations and acronyms	
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disrupting properties

Full text of H- and EUH-statements	
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aerosol 1	Aerosol, Category 1
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1
Asp. Tox. 1	Aspiration hazard, Category 1
H222	Extremely flammable aerosol.
H229	Pressurised container: May burst if heated.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H332	Harmful if inhaled.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

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.