

AERO-SENSE AIRCRAFT INSECTICIDE - ASD - 092590



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 : AERO-SENSE AIRCRAFT INSECTICIDE - ASD

Product code : 092590.

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

Direct and long-working efficiency against all the crawling and flying insects. Only use the product as directed on the aerosol.

For professional users only.

1.3. Details of the supplier of the safety data sheet

Registered company name : Aero-Sense BVBA/SPRL.

Address : Delaerestraat 41.8800.Roeselare.Belgium.

Telephone : +32 (0)51 26 80 00. Fax : +32 (0)51 46 79 23.

info@aero-sense.com

www.aero-sense.com

1.4. Emergency telephone number : +32 (0)70 245 245.

Association/Organisation : Anti-poison Center Belgium.

SECTION 2 : HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

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

Aerosol, Category 3 (Aerosol 3, H229).

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).

2.2. Label elements

Mixture for aerosol application.

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

Hazard pictograms :



GHS09

Signal Word :

WARNING

Additional labeling :

13.6% by mass of the contents are flammable.

Hazard statements :

H229 Pressurised container: May burst if heated.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements - Prevention :

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P251 Do not pierce or burn, even after use.

Precautionary statements - Storage :

P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C.

2.3. Other hazards

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

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

Intentional misuse of the preparation by concentrating and inhaling the vapours can be harmful or fatal.

Rapid evaporation of the liquid may cause frostbite.

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SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

Composition :

| Identification | (EC) 1272/2008 | Note | % |
|---|--|------------|-----------------|
| CAS: 811-97-2 EC: 212-377-0 REACH: 01-2119459374-33 | GHS04 Wng Press. Gas, H280 | [1] [7] | 50 <= x % < 100 |
| 1,1,1,2-TETRAFLUOROETHANE | | | |
| CAS: 26046-85-5 EC: 247-431-2 | GHS09 Wng Aquatic Acute 1, H400 M Acute = 100 Aquatic Chronic 1, H410 M Chronic = 100 | | 1 <= x % < 2.5 |
| 1R-TRANS PHENOTHHRIN | | | |

Information on ingredients :

[7] Propellant gas

[1] Substance for which maximum workplace exposure limits are available.

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 massive inhalation, remove the person exposed to fresh air. Keep warm and at rest.

In the event of splashes or contact with eyes :

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists : Get medical advice/attention.

In the event of splashes or contact with skin :

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

Rapid evaporation of the liquid may cause frostbite.

In the event of swallowing :

Seek medical attention, showing the label.

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

See section 11.

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

If you feel unwell, seek medical advice (show the label if possible). If symptoms persist, always call a doctor.

SECTION 5 : FIREFIGHTING MEASURES

5.1. Extinguishing media

If the aerosols are exposed to a fire : keep containers cool by spraying with water from a protected position.

Suitable methods of extinction

In the event of a fire, use :

- sprayed water or water mist
- foam
- powder
- carbon dioxide (CO2)

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)

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- carbon dioxide (CO₂)

In a fire or if heated, a pressure increase will occur and the container may burst. Bursting aerosol containers may be propelled from a fire at high speed. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

5.3. Advice for firefighters

If possible, stop the product stream. Spray from a protected position till the containers are cool. If possible, take the aerosols outside. Keep public on a distance.

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.

If the product contaminates waterways, rivers or drains, alert the relevant authorities in accordance with statutory procedures

Use drums to dispose of collected waste in compliance with current regulations (see section 13).

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.

Remove contaminated clothing and protective equipment before entering eating areas.

Fire prevention :

Do not pierce or burn, even after use.

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.

Do not breathe in aerosols.

Prohibited equipment and procedures :

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

Never open the packages under pressure.

7.2. Conditions for safe storage, including any incompatibilities

No data available.

Storage

Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50°C.

Keep away from heat and sources of ignition. Storage in a dry, frost-free and well ventilated place.

Packaging

Always keep in packaging made of an identical material to the original.

7.3. Specific end use(s)

No data available.

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SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Occupational exposure limits :

- UK / WEL (Workplace exposure limits, EH40/2005, 2007) :

| | | | | | |
|----------|----------|--------|-----------|--------------|------------|
| CAS | TWA : | STEL : | Ceiling : | Definition : | Criteria : |
| 811-97-2 | 1000 ppm | - | - | - | - |

Derived no effect level (DNEL) or derived minimum effect level (DMEL):

1,1,1,2-TETRAFLUOROETHANE (CAS: 811-97-2)

Final use:

Exposure method:

Potential health effects:

DNEL :

Workers.

Inhalation.

Long term systemic effects.

13936 mg of substance/m³

Final use:

Exposure method:

Potential health effects:

DNEL :

Consumers.

Inhalation.

Long term systemic effects.

2476 mg of substance/m³

Predicted no effect concentration (PNEC):

1,1,1,2-TETRAFLUOROETHANE (CAS: 811-97-2)

Environmental compartment:

Fresh water.

PNEC :

0.1 mg/l

Environmental compartment:

Sea water.

PNEC :

0.01 mg/l

Environmental compartment:

Intermittent waste water.

PNEC :

1 mg/l

Environmental compartment:

Fresh water sediment.

PNEC :

0.75 mg/kg

Environmental compartment:

Waste water treatment plant.

PNEC :

73 mg/l

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.

Do not spray in the direction of the eyes.

- Hand protection

Use suitable protective gloves that are resistant to chemical agents in accordance with standard EN374.

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.

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Type of gloves recommended :

- Nitrile rubber (butadiene-acrylonitrile copolymer rubber (NBR))
- Viton® (Hexafluoropropylene copolymer and vinylidene fluoride)

Recommended properties :

- Impervious gloves in accordance with standard EN374

Not necessary at efficient use. Wash your hands after contact with skin.

- 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.

Not necessary at efficient use. Wash skin that has been in contact with the product, with water and soap.

- Respiratory protection

Anti-gas and vapour filter(s) (Combined filters) in accordance with standard EN14387 :

- AX (Brown)

Do not breathe spray. Use only in well-ventilated areas.

Exposure controls linked to environmental protection

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

General information :

Physical state : Fluid liquid.

Spray.

Color : Yellow, clear

Odour : Specific

Important health, safety and environmental information

pH : Not relevant.

Flash point interval : Not relevant.

Vapour pressure (50°C) : Not relevant.

Density : 1.13

Water solubility : Insoluble.

Flash point : Not applicable

Flammability : Not applicable

9.2. Other information

VOC (g/l) : 0.00

Pressure at 20°C : ± 6.0 bar

Pressure at 50°C : < 12 bar

Water content : < 0.3 % w/w

SECTION 10 : STABILITY AND REACTIVITY

10.1. Reactivity

No data available.

10.2. Chemical stability

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

10.3. Possibility of hazardous reactions

Under normal conditions of storage and use, hazardous reactions will not occur.

10.4. Conditions to avoid

Avoid :

- heat
- flames and hot surfaces
- frost

Protect from sunlight and do not expose to temperatures exceeding 50°C. Keep away from heat and sources of ignition. Storage in a dry, frost-free and well ventilated place.

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10.5. Incompatible materials

Alkali metals, alkaline earth metals, powdered metals, powdered metal salts.

10.6. Hazardous decomposition products

The thermal decomposition may release/form :

- carbon monoxide (CO)
- carbon dioxide (CO₂)

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

SECTION 11 : TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Narcosis, severe shortness of breath, Irregular cardiac activity by inhaling great concentrations.

Rapid evaporation of the liquid may cause frostbite.

Contact with liquefied gas may cause severe ocular lesions.

11.1.1. Substances

Acute toxicity :

1,1,1,2-TETRAFLUOROETHANE (CAS: 811-97-2)

Inhalation route (n/a) : LC50 = 567000 ppm
Species : Rat

1R-TRANS PHENOTHRIN (CAS: 26046-85-5)

Oral route : LD50 > 2000 mg/kg
Species : Rat

Dermal route : LD50 > 2000 mg/kg
Species : Rat

Inhalation route (n/a) : LC50 > 2.1 mg/l
Species : Rat

Skin corrosion/skin irritation :

1R-trans Phenothrin : Not irritating.

1,1,1,2-Tetrafluoroethane : Not irritant.

Serious damage to eyes/eye irritation :

1R-trans Phenothrin : Not irritating.

1,1,1,2-Tetrafluoroethane : Not irritating.

Respiratory or skin sensitisation :

1,1,1,2-Tetrafluoroethane : Not sensitizing.

1R-trans Phenothrin : Not sensitizing.

Germ cell mutagenicity :

1R-TRANS PHENOTHRIN (CAS: 26046-85-5)

No mutagenic effect.

1,1,1,2-TETRAFLUOROETHANE (CAS: 811-97-2)

No mutagenic effect.

Carcinogenicity :

1R-TRANS PHENOTHRIN (CAS: 26046-85-5)

Negative.
No carcinogenic effect.

1,1,1,2-TETRAFLUOROETHANE (CAS: 811-97-2)

Carcinogenicity Test : Negative.
No carcinogenic effect.

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12.3. Bioaccumulative potential

1,1,1,2-Tetrafluoroethane : Bioaccumulation is unlikely.

1R-trans Phenothrin : No bioaccumulation.

12.3.1. Substances

1R-TRANS PHENOTHRIN (CAS: 26046-85-5)

Octanol/water partition coefficient : log K_{o/w} = 6.8

1,1,1,2-TETRAFLUOROETHANE (CAS: 811-97-2)

Octanol/water partition coefficient : log K_{o/w} = 1.06

12.4. Mobility in soil

1,1,1,2-Tetrafluoroethane : No data available.

1R-trans Phenothrin : Readily absorbed into soil.

12.5. Results of PBT and vPvB assessment

1R-trans Phenothrin : PBT/vPvB : No.

1,1,1,2-Tetrafluoroethane : PBT/vPvB : No.

12.6. Other adverse effects

1,1,1,2-Tetrafluoroethane : Global warming potential : 1430. Not dangerous for the ozone layer.

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, preferably 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 2015 - IMDG 2014 - ICAO/IATA 2015).

14.1. UN number

1950

14.2. UN proper shipping name

UN1950=AEROSOLS, asphyxiant

14.3. Transport hazard class(es)

- Classification :

2.2

ADR/RID Label : Limited Quantity : 2.2 is not applicable.

14.4. Packing group

-

14.5. Environmental hazards

- Environmentally hazardous material :



The symbol above is not applicable for "Limited Quantity".

14.6. Special precautions for user

| ADR/RID | Class | Code | Pack gr. | Label | Ident. | LQ | Provis. | EQ | Cat. | Tunnel |
|---------|-------|------|----------|-------|--------|-----|-----------------|----|------|--------|
| | 2 | 5A | - | 2.2 | - | 1 L | 190 327 344 625 | E0 | 3 | E |

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| IMDG | Class | 2°Label | Pack gr. | LQ | EMS | Provis. | EQ |
|------|-------|----------|----------|-----------|----------|---------------------------|---------------------------------------|
| | 2.2 | See SP63 | - | See SP277 | F-D,S-U | 63 190 277 327 344 959 | E0 |
| IATA | Class | 2°Label | Pack gr. | Passager | Passager | Cargo | Cargo |
| | 2.2 | - | - | 203 | 75 kg | 203 | 150 kg A98 A145 A167 A802 |

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.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

No data available.

SECTION 15 : REGULATORY INFORMATION

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

Labelling :

2.0 % 1R-trans Phenothrin

- Classification and labelling information included in section 2:

The following regulations have been used:

- Directive 75/734/CEE modified by directive 2013/10/UE
- Regulation EC 1272/2008 modified by regulation EC 618/2012
- EU Regulation No. 1272/2008 amended by EU Regulation No. 758/2013.

- Container information:

The mixture is contained in packaging that does not exceed 125 ml.

- Particular provisions :

Labelling following EU Regulation No. 517/2014 : Contains fluorinated greenhouse gases : HFC-134a/152a.

15.2. Chemical safety assessment

A chemical safety assessment has been carried out for the following products or for the substances in these products :

1,1,1,2-Tetrafluoroethane

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 :

H280 Contains gas under pressure; may explode if heated.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.

Abbreviations :

DNEL : Derived No-Effect Level

PNEC : Predicted No-Effect Concentration

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

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Difference Report

Revision: N°2 (04/06/2014) / Version: N°2 (12/01/2016)

(REACH regulation (EC) n° 1907/2006 - n° 2015/830)

Revision: N°1 (20/12/2013) / Version: N°1 (20/12/2013)

SAFETY DATA SHEET

(REACH regulation (EC) n° 1907/2006 - n° 453/2010)

SECTION 2 : HAZARDS IDENTIFICATION

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

~~This mixture does not present a health hazard with the exception of possible occupational exposure thresholds (see paragraphs 3 and 8).~~

In compliance with directives 67/548/EEC, 1999/45/EC and their amendments.

~~Aquatic environmental hazard, chronic toxicity: very toxic (N, R 50/53).~~

~~This mixture does not present a physical hazard. Refer to the recommendations regarding the other products present on the site.~~

~~This mixture does not present a health hazard with the exception of possible occupational exposure thresholds (see paragraphs 3 and 8).~~

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

~~13.9% by mass of the contents are flammable.~~

13.6% by mass of the contents are flammable.

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

Composition :

| Identification | (EC) 1272/2008 | 67/548/EEC | Note | % |
|---|--|---------------|------------|-----------------|
| CAS: 811-97-2 EC: 212-377-0 REACH: 01-2119459374-33 | GHS04 Wng Press. Gas, H280 | | [1] [7] | 50 <= x % < 100 |
| 1,1,1,2-TETRAFLUOROETHANE | | | | |
| CAS: 26046-85-5 EC: 247-431-2 | GHS09 Wng Aquatic Acute 1, H400 M Acute = 100 | N N;R50/53 | | 1 <= x % < 2.5 |
| 1R-TRANS PHENOTHIRIN | Aquatic Chronic 1, H410 M Chronic = 100 | | | |
| Identification | (EC) 1272/2008 | | Note | % |
| CAS: 811-97-2 EC: 212-377-0 REACH: 01-2119459374-33 | GHS04 Wng Press. Gas, H280 | | [1] [7] | 50 <= x % < 100 |
| 1,1,1,2-TETRAFLUOROETHANE | | | | |
| CAS: 26046-85-5 EC: 247-431-2 | GHS09 Wng Aquatic Acute 1, H400 M Acute = 100 | | | 1 <= x % < 2.5 |
| 1R-TRANS PHENOTHIRIN | Aquatic Chronic 1, H410 M Chronic = 100 | | | |

SECTION 6 : ACCIDENTAL RELEASE MEASURES

6.2. Environmental precautions

If the product contaminates waterways, rivers or drains, alert the relevant authorities in accordance with statutory procedures

Use drums to dispose of collected waste in compliance with current regulations (see section 13).

SECTION 7 : HANDLING AND STORAGE

Storage

~~Storage in a dry, frost free and well ventilated place.~~

Keep away from heat and sources of ignition. Storage in a dry, frost-free and well ventilated place.

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7.1. Precautions for safe handling

- Remove and wash contaminated clothing before re-using.
- Remove contaminated clothing and protective equipment before entering eating areas.

Prohibited equipment and procedures :

- Never open the packages under pressure.

SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal protection measures, such as personal protective equipment

- Hand protection

Use suitable protective gloves that are resistant to chemical agents in accordance with standard EN374.

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.

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 2013 - IMDG 2012 - ICAO/IATA 2013).~~

Transport product in compliance with provisions of the ADR for road, RID for rail, IMDG for sea and ICAO/IATA for air transport (ADR 2015 - IMDG 2014 - ICAO/IATA 2015).

SECTION 15 : REGULATORY INFORMATION

- Classification and labelling information included in section 2:

~~Directive 67/548/EEC and its adaptations~~

~~Directive 1999/45/EC and its adaptations~~

- EU Regulation No. 1272/2008 amended by EU Regulation No. 758/2013.

- Particular provisions :

~~No data available.~~

Labelling following EU Regulation No. 517/2014 :

Contains fluorinated greenhouse gases : HFC-134a/152a.

SECTION 16 : OTHER INFORMATION

Wording of the phrases mentioned in section 3 :

~~R 50/53~~

~~Very toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment.~~