

SILVER SPRAY - 089250-NFDT-EN



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 : SILVER SPRAY

Product code : 089250-NFDT-EN.

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

Ideal for use on handicrafts (e.g. cones, cardboard, etc.), Christmas decorations and flower arrangements. Only use the product as directed on the aerosol.

1.3. Details of the supplier of the safety data sheet

Registered company name : Volcke Aerosol Company NV.

Address : Industrielaan 15. B-8520. Kurne. Belgium.

Telephone : +32 (0) 56 35 17 23. Fax : +32 (0) 56 35 30 69.

info@volcke-aerosol-connection.com

http://www.volcke-aerosol-connection.com

1.4. Emergency telephone number : +32 (0) 56 35 17 23.

Association/Organisation : http://www.volcke-aerosol-connection.com.

Hours of operation : Monday - Thursday : 8:00-17:00; Friday : 8:00-13:00

Other emergency numbers

United Kingdom : National Poisons Information Service : +44 (0)844 892 0111. Ireland : Poisons Information Centre of Ireland : +353 1 809 2166.

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).

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

This mixture does not present an environmental hazard. No known or foreseeable environmental damage under standard conditions of use.

2.2. Label elements

Mixture for aerosol application.

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

Signal Word :

WARNING

Additional labeling :

34% by mass of the contents are flammable.

Hazard statements :

H229 Pressurised container: May burst if heated.

Precautionary statements - General :

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

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) \geq 0.1% published by the European Chemicals Agency (ECHA) under article 57 of REACH: <http://echa.europa.eu/fr/candidate-list-table>

The mixture fulfils 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.

SILVER SPRAY - 089250-NFDI-EN**SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS****3.2. Mixtures****Composition :**

Identification	(EC) 1272/2008	Note	%
EC: 918-167-1 REACH: 01-2119472146-39 HYDROCARBONS, C11-C12, ISOALKANES, < 2 % AROMATICS	GHS08, GHS02 Dgr Flam. Liq. 3, H226 Asp. Tox. 1, H304 Aquatic Chronic 4, H413 EUH:066		10 <= x % < 25
CAS: 106-97-8 EC: 203-448-7 REACH: 01-2119474691-32 BUTANE (< 0,1 % 1,3-BUTADIENE)	GHS02 Dgr Flam. Gas 1, H220 Press. Gas, H280	C [1] [7]	1 <= x % < 2.5
CAS: 109-87-5 EC: 203-714-2 REACH: 01-2119664781-31 METHYLAL	GHS02 Dgr Flam. Liq. 2, H225	[1]	1 <= x % < 2.5
CAS: 74-98-6 EC: 200-827-9 REACH: 01-2119486944-21 PROPANE	GHS02 Dgr Flam. Gas 1, H220 Press. Gas, H280	[1] [7]	1 <= x % < 2.5
CAS: 7429-90-5 EC: 231-072-3 REACH: 01-2119529243-45 ALUMINIUM POWDER (STABILISED)	GHS02 Dgr Flam. Sol. 1, H228	T [1]	1 <= x % < 2.5
CAS: 68439-50-9 EC: 500-213-3 REACH: 01-2119487984-16 ALCOHOLS, C12-14, ETHOXYLATED	GHS05, GHS09 Dgr Skin Corr. 1B, H314 Aquatic Chronic 3, H412 Aquatic Acute 1, H400 M Acute = 1		0 <= x % < 1

(Full text of H-phrases: see section 16)

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 :

Wash thoroughly with fresh, clean water for 15 minutes holding the eyelids open.

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.

In the event of swallowing :

In the event of swallowing, if the quantity is small (no more than one mouthful), rinse the mouth with water and consult a doctor.

Keep the person exposed at rest. Do not force vomiting.

Seek medical attention, showing the label.

If swallowed accidentally, call a doctor to ascertain whether observation and hospital care will be necessary. Show 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.

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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
- multipurpose ABC powder
- BC 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)
- carbon dioxide (CO₂)
- nitrogen oxide (NO)
- nitrogen dioxide (NO₂)

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 at 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.

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.

Ensure that there is adequate ventilation, especially in confined areas.

Fire prevention :

Handle in well-ventilated areas.

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.

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Do not breathe in aerosols.

Packages which have been opened must be reclosed carefully and stored in an upright position.

Prohibited equipment and procedures :

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

7.2. Conditions for safe storage, including any incompatibilities

No data available.

Storage

Keep out of reach of children.

The floor must be impermeable and form a collecting basin so that, in the event of an accidental spillage, the liquid cannot spread beyond this area.

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.

SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1. Control parameters****Occupational exposure limits :**

- UK / WEL (Workplace exposure limits, EH40/2005, 2011) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
106-97-8	600 ppm 1450 mg/m ³	750 ppm 1810 mg/m ³		Carc	
109-87-5	1000 ppm 3160 mg/m ³	1250 ppm 3950 mg/m ³			
7429-90-5	2 mg/m ³	-	-	-	-

Hydrocarbons, C11-C12, isoalkanes, < 2 % aromatics : AGW (DE) : 300 mg/m³ (8 h)

- Ireland (Code of practice for the Chemical Agents Regulations, 2016) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
106-97-8	1000 ppm				
109-87-5	1000 ppm 3100 mg/m ³	1250 ppm 3880 mg/m ³			
74-98-6	1000 ppm				
7429-90-5	1 mg/m ³				

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

METHYLAL (CAS: 109-87-5)

Final use:

Exposure method:
Potential health effects:
DNEL :

Workers.

Dermal contact.
Long term systemic effects.
17.9 mg/kg body weight/day

Exposure method:
Potential health effects:
DNEL :

Inhalation.
Long term systemic effects.
126.6 mg of substance/m³

Final use:

Exposure method:
Potential health effects:
DNEL :

Consumers.

Ingestion.
Long term systemic effects.
18.1 mg/kg body weight/day

Exposure method:
Potential health effects:
DNEL :

Dermal contact.
Long term systemic effects.
18.1 mg/kg body weight/day

Exposure method:
Potential health effects:

Inhalation.
Long term systemic effects.

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DNEL : 31.5 mg of substance/m3

Predicted no effect concentration (PNEC):

METHYLAL (CAS: 109-87-5)

Environmental compartment: Soil.
PNEC : 4.6538 mg/kg

Environmental compartment: Fresh water.
PNEC : 14.577 mg/l

Environmental compartment: Sea water.
PNEC : 1.477 mg/l

Environmental compartment: Fresh water sediment.
PNEC : 13.135 mg/kg

Environmental compartment: Marine sediment.
PNEC : 1.313 mg/kg

Environmental compartment: Waste water treatment plant.
PNEC : 10 g/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

Wear suitable protective gloves in the event of prolonged or repeated skin contact.

Type of gloves recommended :

- Natural latex
- Nitrile rubber (butadiene-acrylonitrile copolymer rubber (NBR))
- PVC (polyvinyl chloride)
- Butyl Rubber (Isobutylene-isoprene copolymer)

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 :

- A1 (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.

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SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

General information :

Physical state :	Fluid liquid. Spray.
Color :	Silver
Odour :	Specific

Important health, safety and environmental information

pH :	7.00 . Neutral.
Flash point interval :	Not relevant.
Vapour pressure (50°C) :	Not relevant.
Density :	0.925
Water solubility :	Soluble.
Chemical combustion heat :	< 20 kJ/g.
Inflammation time :	> 300 s/m3.
Flash point :	Not applicable
Flammability :	Not applicable
Ignition distance :	No ignition

9.2. Other information

Pressure at 20°C :	± 6.0 bar
Pressure at 50°C :	< 12 bar
Water content :	Water-based formulation

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

When exposed to high temperatures, the mixture can release hazardous decomposition products, such as carbon monoxide and dioxide, fumes and nitrogen oxide.

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

10.4. Conditions to avoid

Avoid :

- frost
- heat
- flames and hot surfaces

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.

10.5. Incompatible materials

No materials known by which a dangerous reaction can occur.

10.6. Hazardous decomposition products

The thermal decomposition may release/form :

- carbon monoxide (CO)
- carbon dioxide (CO2)
- nitrogen oxide (NO)
- nitrogen dioxide (NO2)

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

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SECTION 11 : TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Splashes in the eyes may cause irritation and reversible damage

11.1.1. Substances

Acute toxicity :

PROPANE (CAS: 74-98-6)

Inhalation route (n/a) : LC50 > 10 mg/l

BUTANE (< 0,1 % 1,3-BUTADIENE) (CAS: 106-97-8)

Inhalation route (n/a) : LC50 > 10 mg/l

ALCOHOLS, C12-14, ETHOXYLATED (CAS: 68439-50-9)

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

ALUMINIUM POWDER (STABILISED) (CAS: 7429-90-5)

Oral route : LD50 > 15900 mg/kg
Species : Rat
OECD Guideline 401 (Acute Oral Toxicity)

Inhalation route (n/a) : LC50 > 0.888 mg/l
Species : Rat
OECD Guideline 403 (Acute Inhalation Toxicity)

METHYLAL (CAS: 109-87-5)

Oral route : LD50 = 6453 mg/kg
Species : Rat
OECD Guideline 423 (Acute Oral toxicityAcute Toxic Class Method)

Dermal route : LD50 > 5000 mg/kg
Species : Rabbit
OECD Guideline 402 (Acute Dermal Toxicity)

HYDROCARBONS, C11-C12, ISOALKANES, < 2 % AROMATICS

Oral route : LD50 > 5000 mg/kg
Species : Rat
OECD Guideline 401 (Acute Oral Toxicity)

Dermal route : LD50 > 5000 mg/kg
Species : Rabbit
OECD Guideline 402 (Acute Dermal Toxicity)

Inhalation route (n/a) : LC50 > 5000 mg/m3
Species : Rat
OECD Guideline 403 (Acute Inhalation Toxicity)

Skin corrosion/skin irritation :

Methylal : Not irritating. Repeated or prolonged skin contact may cause dermatitis and defatting.

Hydrocarbons, C11-C12, isoalkanes, < 2 % aromatics : Not classified as skin corrosive/irritant but marked with EUH066.

Aluminium powder (stabilised) : Not classified.

Alcohols, C12-14, ethoxylated : Corrosive to skin.

ALUMINIUM POWDER (STABILISED) (CAS: 7429-90-5)

Species : Rabbit
OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Irritation : Average score = 0.166
Species : Rabbit

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Duration of exposure : 72 h
OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

METHYLAL (CAS: 109-87-5)

Species : Rabbit
OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Irritation :

Average score = 4.2
Effect observed : Primary dermal irritation index (PDII)
Species : Rabbit
Duration of exposure : 72 h
OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

HYDROCARBONS, C11-C12, ISOALKANES, < 2 % AROMATICS

OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Species : Rabbit
Duration of exposure : 72 h
OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Serious damage to eyes/eye irritation :

Methylal : Not irritating.

Hydrocarbons, C11-C12, isoalkanes, < 2 % aromatics : Not classified as damaging or irritant to eyes.

Alcohols, C12-14, ethoxylated : Causes serious eye damage.

Aluminium powder (stabilised) : Not classified.

HYDROCARBONS, C11-C12, ISOALKANES, < 2 % AROMATICS

Corneal haze :

Average score = 0
Species : Rabbit
Duration of exposure : 72 h
OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Iritis :

Average score = 0
Species : Rabbit
Duration of exposure : 72 h
OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Conjunctival redness :

Average score = 0
Species : Rabbit
Duration of exposure : 72 h
OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Conjunctival oedema :

Average score = 0
Species : Rabbit
Duration of exposure : 72 h
OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Respiratory or skin sensitisation :

Methylal : Not sensitizing.

Hydrocarbons, C11-C12, isoalkanes, < 2 % aromatics : Not classified as sensitizing.

Aluminium powder (stabilised) : Not classified.

Alcohols, C12-14, ethoxylated : Not sensitizing.

METHYLAL (CAS: 109-87-5)

Guinea Pig Maximisation Test (GMPT) :

Non-sensitiser.
Species : Guinea pig
OECD Guideline 406 (Skin Sensitisation)

HYDROCARBONS, C11-C12, ISOALKANES, < 2 % AROMATICS

Guinea Pig Maximisation Test (GMPT) :

Non-sensitiser.
Species : Guinea pig

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OECD Guideline 406 (Skin Sensitisation)

Germ cell mutagenicity :

ALCOHOLS, C12-14, ETHOXYLATED (CAS: 68439-50-9)

No mutagenic effect.

ALUMINIUM POWDER (STABILISED) (CAS: 7429-90-5)

No mutagenic effect.

PROPANE (CAS: 74-98-6)

No mutagenic effect.

METHYLAL (CAS: 109-87-5)

No mutagenic effect.

Mutagenesis (in vivo) :

Negative.

Species : Mouse

OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)

Mutagenesis (in vitro) :

Negative.

Species : Mammalian Cell Line

OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)

BUTANE (< 0,1 % 1,3-BUTADIENE) (CAS: 106-97-8)

No mutagenic effect.

HYDROCARBONS, C11-C12, ISOALKANES, < 2 % AROMATICS

No mutagenic effect.

Mutagenesis (in vivo) :

Negative.

Species : Rat

OECD Guideline 478 (Genetic Toxicology: Rodent Dominant Lethal Test)

Mutagenesis (in vitro) :

Negative.

Species : Bacteria

OECD Guideline 471 (Bacterial Reverse Mutation Assay)

Species : S. typhimurium TA102

Carcinogenicity :

Alcohols, C12-14, ethoxylated : No known significant effects or critical hazards.

ALUMINIUM POWDER (STABILISED) (CAS: 7429-90-5)

Carcinogenicity Test :

Negative.

No carcinogenic effect.

PROPANE (CAS: 74-98-6)

Carcinogenicity Test :

Negative.

No carcinogenic effect.

METHYLAL (CAS: 109-87-5)

Carcinogenicity Test :

Negative.

No carcinogenic effect.

BUTANE (< 0,1 % 1,3-BUTADIENE) (CAS: 106-97-8)

Carcinogenicity Test :

Negative.

No carcinogenic effect.

HYDROCARBONS, C11-C12, ISOALKANES, < 2 % AROMATICS

Carcinogenicity Test :

Negative.

No carcinogenic effect.

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OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)

Reproductive toxicant :

Alcohols, C12-14, ethoxylated : No known significant effects or critical hazards.

ALUMINIUM POWDER (STABILISED) (CAS: 7429-90-5)

No toxic effect for reproduction

PROPANE (CAS: 74-98-6)

No toxic effect for reproduction

METHYLAL (CAS: 109-87-5)

No toxic effect for reproduction

BUTANE (< 0,1 % 1,3-BUTADIENE) (CAS: 106-97-8)

No toxic effect for reproduction

HYDROCARBONS, C11-C12, ISOALKANES, < 2 % AROMATICS

No toxic effect for reproduction

Study on fertility :

Species : Rat

OECD Guideline 414 (Prenatal Developmental Toxicity Study)

Study on development :

Species : Rat

OECD Guideline 421 (Reproduction / Developmental Toxicity Screening Test)

Specific target organ systemic toxicity - single exposure :

Methylal : To human : Not classified for organ toxicity. For animals : No effects known.

Hydrocarbons, C11-C12, isoalkanes, < 2 % aromatics : Not classified as toxic to a target organ.

Aluminium powder (stabilised) : Not classified.

Specific target organ systemic toxicity - repeated exposure :

Methylal : To human : Not classified for organ toxicity. For animals : No effects known.

Hydrocarbons, C11-C12, isoalkanes, < 2 % aromatics : Not classified as toxic to a target organ.

Aluminium powder (stabilised) : Not classified.

Aspiration hazard :

Methylal : Not considered hazardous.

Hydrocarbons, C11-C12, isoalkanes, < 2 % aromatics : In case of swallowing or vomiting product can enter airways and can cause chemical pneumonitis and pulmonary oedema.

Aluminium powder (stabilised) : Not classified.

11.1.2. Mixture

No toxicological data available for the mixture.

SECTION 12 : ECOLOGICAL INFORMATION

12.1. Toxicity

12.1.1. Substances

HYDROCARBONS, C11-C12, ISOALKANES, < 2 % AROMATICS

Fish toxicity :

LC50 = 1000 mg/l

Species : *Oncorhynchus mykiss*

Duration of exposure : 96 h

Crustacean toxicity :

EC50 = 1000 mg/l

Species : *Daphnia magna*

Duration of exposure : 48 h

NOEC > 1 mg/l

Species : *Daphnia magna*

Duration of exposure : 21 days

OECD Guideline 211 (*Daphnia magna* Reproduction Test)

Algae toxicity :

ECr50 = 1000 mg/l

Species : *Pseudokirchnerella subcapitata*

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Duration of exposure : 72 h

NOEC = 1000 mg/l

Species : Pseudokirchnerella subcapitata

Duration of exposure : 72 h

ALUMINIUM POWDER (STABILISED) (CAS: 7429-90-5)

Fish toxicity :

LC50 = 1.16 mg/l

Duration of exposure : 96 h

Other guideline

NOEC = 0.7517 mg/l

Duration of exposure : 7 days

Crustacean toxicity :

EC50 = 0.72 mg/l

Duration of exposure : 48 h

NOEC = 0.076 mg/l

METHYLAL (CAS: 109-87-5)

Fish toxicity :

LC50 > 1000 mg/l

Species : Danio rerio

Duration of exposure : 96 h

OECD Guideline 203 (Fish, Acute Toxicity Test)

Crustacean toxicity :

EC50 > 1000 mg/l

Species : Daphnia magna

Duration of exposure : 48 h

OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)

12.1.2. Mixtures

No aquatic toxicity data available for the mixture.

12.2. Persistence and degradability

Butane/Isobutane/Propane : Expected to be readily biodegradable.

Hydrocarbons, C11-C12, isoalkanes, < 2 % aromatics : Inherently biologically degradable. Transformation due to hydrolysis and due to photolysis is not expected to be significant. Expected to degrade rapidly in air.

12.2.1. Substances

ALCOHOLS, C12-14, ETHOXYLATED (CAS: 68439-50-9)

Biodegradability :

Rapidly degradable.

PROPANE (CAS: 74-98-6)

Biodegradability :

Rapidly degradable.

METHYLAL (CAS: 109-87-5)

Biodegradability :

Non-rapidly degradable.

BUTANE (< 0,1 % 1,3-BUTADIENE) (CAS: 106-97-8)

Biodegradability :

Rapidly degradable.

HYDROCARBONS, C11-C12, ISOALKANES, < 2 % AROMATICS

Biodegradability :

Non-rapidly degradable.

12.3. Bioaccumulative potential

Butane/Isobutane/Propane : Not expected to be dangerous for the aquatic environment.

Methylal : No data available.

Hydrocarbons, C11-C12, isoalkanes, < 2 % aromatics : Not determined.

Alcohols, C12-14, ethoxylated : No data available.

Aluminium powder (stabilised) : No data available.

12.4. Mobility in soil

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Butane/Isobutane/Propane : If released into the environment, the product will rapidly disperse into the atmosphere where it will undergo photochemical degradation.

Methylal : No data available.

Hydrocarbons, C11-C12, isoalkanes, < 2 % aromatics : Leaking material can soak in the sediment layer and cause soil and groundwater contamination.

Alcohols, C12-14, ethoxylated : No data available.

Aluminium powder (stabilised) : No data available.

12.5. Results of PBT and vPvB assessment

Hydrocarbons, C11-C12, isoalkanes, < 2 % aromatics : PBT/vPvB : No.

Methylal : PBT/vPvB : No.

Alcohols, C12-14, ethoxylated : PBT/vPvB : No.

Aluminium powder (stabilised) : PBT/vPvB : No.

12.6. Other adverse effects

No data available.

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.

Recycle or dispose of waste in compliance with current legislation, namely the Ordinance on the Avoidance and Disposal of Waste (Waste Ordinance, VVEA, SR 814.600), the Ordinance on Waste from June 22, 2005 (VeVA, SR 814, 610) and DETEC Ordinance on Waste Lists.

Disposal of the product (the unused product, residual quantities, the cured product, emptied but uncleaned packaging) : preferably by an approved waste collector or a specialist disposal company. Suitable containers and methods of waste treatment should be used.

Soiled packaging :

Empty container completely. Keep label(s) on container.

Give to a certified disposal contractor.

Codes of wastes (Decision 2014/955/EC, Directive 2008/98/EEC on hazardous waste) :

15 01 10 * packaging containing residues of or contaminated by dangerous substances

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 2019 - IMDG 2018 - ICAO/IATA 2019).

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

-

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
IMDG	Class	2°Label	Pack gr.	LQ	EMS	Provis.	EQ	Stowage Handling	Segregation	
	2	See SP63	-	See SP277	F-D, S-U	63 190 277 327 344 381 959	E0	- SW1 SW22	SG69	

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IATA	Class	2°Label	Pack gr.	Passager	Passager	Cargo	Cargo	note	EQ
	2.2	-	-	203	75 kg	203	150 kg	A98 A145 A167 A802	E0
	2.2	-	-	Y203	30 kg G	-	-	A98 A145 A167 A802	E0

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****- Classification and labelling information included in section 2:**

The following regulations have been used:

- Directive 75/324/CEE modified by directive 2013/10/UE
- EU Regulation No. 1272/2008 amended by EU Regulation No. 2018/1480 (ATP 13)
- EU Regulation No. 1272/2008 amended by EU Regulation No. 2019/521 (ATP 12)

- Container information:

No data available.

- Particular provisions :

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

Methylal

Hydrocarbons, C11-C12, isoalkanes, < 2 % aromatics

Alcohols, C12-14, ethoxylated

Aluminium powder (stabilised)

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 :

H220	Extremely flammable gas.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H228	Flammable solid.
H280	Contains gas under pressure; may explode if heated.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H400	Very toxic to aquatic life.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.
EUH066	Repeated exposure may cause skin dryness or cracking.

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 : Wassergefährdungsklasse (Water Hazard Class).

PBT: Persistent, bioaccumulable and toxic.

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vPvB : Very persistent, very bioaccumulable.

SVHC : Substances of very high concern.

Difference Report

Revision: N°5 (18/02/2020) / GHS n°2 / HCS n° / Version: N°1 (18/02/2020)

~~Revision: N°4 (25/06/2018) / GHS n°1 / HCS n° / Version: N°1 (25/06/2018)~~

SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

Method of determining the refractive index :

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 2017-IMDG 2016 - ICAO/IATA 2017).~~

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

IMDG	Class	2°Label	Pack gr.	LQ	EMS	Provis.	EQ
	2	See SP63	-	See SP277	F-D, S-U	63 190 277-327 344 381-959	E0

Transport product in compliance with provisions of the ADR for road, RID for rail, IMDG for sea and ICAO/IATA for air transport (ADR 2019 - IMDG 2018 - ICAO/IATA 2019).

	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	StowageHandling	Segregation
	2	See SP63	-	See SP277	F-D, S-U	63 190 277 327 344 381 959	E0	- SW1 SW22	SG69

SECTION 15 : REGULATORY INFORMATION

- Classification and labelling information included in section 2:

~~EU Regulation No. 1272/2008 amended by EU Regulation No. 2017/776 (ATP 10)~~

- EU Regulation No. 1272/2008 amended by EU Regulation No. 2018/1480 (ATP 13)

- EU Regulation No. 1272/2008 amended by EU Regulation No. 2019/521 (ATP 12)