

Reference: Regulation (EC) 1907/2006 453/2010	MATERIAL SAFETY DATA SHEET (MSDS) Product: NDP Air Spray +	Version 12 Date last revision: 20.05.20 SHEET 1 of 9
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1. IDENTIFICATION OF SUBSTANCE / MIXTURE AND OF THE COMPANY:

1.1. Product identifier: NDP Air Spray +

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

Use of the substance: Disinfectant (bactericide, fungicide and virucide)

Spanish Ministry of Health register:

Register num. DGSPyC: 17-20/40-05644

1.3. Details of the supplier of the safety data sheet

Manufacturer: Vesimin S.L. C/Lluçà, 28 5º – 08028 Barcelona (Spain)

vesimin@vesimin.com

Telephone number: +34 934 095 301

Fax: +34 933 396 628

1.4. Emergency number: +34 934 095 301 (working hours)

2. HAZARD IDENTIFICATION:

2.1. Classification of the substance or mixture

Classification according to CE Regulation num. 1272/2008 [CLP]

H222, H229: FLAMMABLE AEROSOLS. Category 1

H319 EYE IRRITATION. Category 2

H336 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE). Category 3.

H412 HAZARDOUS TO THE AQUATIC ENVIRONMENT – CHRONIC HAZARD.
Category 3

2.2. Label elements: according to CE Regulation num. 1272/2008 [CLP]

Hazard pictograms:



Signal word : DANGER

Hazard statements:

- Extremely flammable aerosol (H222)
- Pressurized container: may burst if heated (H229)
- Causes serious eye irritation (H319)
- May cause drowsiness or dizziness (H336)
- Harmful to aquatic life with long lasting effects (H412)

Precautionary Statements

- Do not spray on an open flame or other ignition source. (P211)
- Avoid breathing vapours. Use only outdoors or in a well-ventilated area. (P261 + P271)
- Wear protective gloves/protective clothing/eye protection/face protection. Wash with the hands thoroughly after handling (P280 + P264)
- Store in a well-ventilated place. Keep container tightly closed. Store locked up (P403 + P233 + P405)

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- Avoid release to the environment (P273)
- Dispose of contents and/or container in accordance with dangerous residues regulations (P501)

2.3. Other hazards

Physical/chemical hazards: Pressurized bottle. Flammable. The propellant is combustible. The propellant vapours are heavier than the air and can displace to remote ignition zones.

Human health hazards: No significant health risks if used under standard conditions of commercial and industrial use.

PBT: This product is not identified as PBT/vPvB

3. COMPONENT COMPOSITION / INFORMATION

3.2. Substance/Mixture: Mixture

Dangerous components:

Ingredients	CAS num.	Classification 1272/CE*	Conc%
Didecyl dimethyl ammonium chloride 70%	7173-51-5	Flam. liq. 3: H226 Acute tox. 4: H302; Skin corr. 1B: H314; Chronic aquatic 1: H410	0.46
2-Phenoxyethanol	122-99-6	Acute tox. 4: H302; Eye irrit. 2: H319	0.10
Cinnamaldehyde	104-55-2	Skin corr 2: H315; Skin Sens. 1: H317; Acuatic tox 4: H312	0.02
Isopropyl alcohol	67-63-0	Flam. liq 2: H225; Eye irrit. 2: H319; STOT SE 3: H336	30 – 35
Excipients and propellant	-	Flam. Gas 1: H220	Qsf. 100

* Complete text of hazard statements indicated in this Section are explained in Section 16.

4. FIRST AID MEASURES:

4.1. Description of first aid measures

First aid measures: Transfer quickly the patient to a non-contaminated atmosphere and remove stained or splashed clothes. Rinse the eyes with abundant water for almost 15 minutes. Rinse the skin with abundant water and soap, do not rub. Control the breathing, artificial breathing if necessary. Transfer the patient to a hospital, and bring the label or container if possible.

Do not let alone the patient in any case.

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

Effects and symptoms: Non specific effects and/or symptoms are known

The intoxication can produce: eyes, skin and respiratory and gastro-intestinal tract irritation. Nervous Central System alteration, headache, vertigo, and hallucinations.

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Inhalation: with high air concentrations, the propellant has narcotic and asphyxiating properties due to a decrease in available oxygen for breathing.

Ingestion: the product at room temperature and ambient pressure is in a gas phase, there is not risk by ingestion.

Skin/eye contact: the product is very irritating if it comes into contact with eyes, in this case an immediate washing is recommended, with plenty of water. The liquefied propellant can produce burnings for freezing in contact with skin and eyes.

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

Therapeutic advice: In case of ingestion, consider making an endoscopy. Glucose control and ketonuria. Contraindication: Ipecacuanha. Symptomatic treatment.

5. FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media: Foam, dry chemical powder, CO₂, sand and water spray fog.

Extinguishing media that should not be used because of security reasons: Flammable product containing a high percentage of isopropyl alcohol. In case of fire of great magnitude, amine vapours could be generated.

5.2. Special hazards arising from the substance or mixture

Special hazards of fire/explosion: Extremely flammable product with heat, sparks, static electricity or flammes. The propellant vapour is heavier than the air, and can move to remote ignition sources.

Special measures: Get the bottles away from the fire zone if it can be done without risk. Cool the bottles pulverizing water to them if they are exposed to fire.

5.3. Advice for firefighters

Special protective equipment for fire-fighters: Fire-fighters must be provided with adequate protective equipment.

6. ACCIDENTAL RELEASE MEASURES:

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: Take common precautions. Avoid the contact with skin and eyes. Ventilate the contaminated zone. Do not inhale vapours. Extinguish the flames. Eliminate ignition sources. Do not smoke. Avoid sparks.

6.2. Environmental precautions

Avoid pouring the product into the public drainage. If the product reaches a river course or a sewer, or it has contaminated the soil or vegetation, warn the Authorities. Collect it in plastic containers and eliminate it in appropriate places.

6.3. Methods and material for containment and cleaning up

Cleaning measures: Do not release product into drainpipes or in the environment. Eliminate the spilled product with materials that act as absorbents (sawdust, peat, or chemical chelating agents). Place the collected product in containers that can be

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closed. Clean floor and all objects with this material using a damp cloth. Collect the cleaning materials and put them inside containers that can be closed.

6.4. Reference to other sections

Refer to sections 8 and 13 of SDS.

7. HANDLING AND STORAGE

7.1. Precautions for safe handling

Handling: bottle under pressure. Avoid exposing it to sunlight and temperatures higher than 50°C. Do not perforate or burn, even after its use. Do not vaporize it near a flame or incandescent object. Handle it following hygienic and security rules.

7.2. Conditions for safe storage, including any incompatibilities

Storage: Keep away from ignition sources. Store at room temperature. Avoid extreme temperatures (higher than 50°C or lesser than 0°C) and direct contact with sunlight. Avoid freezing. Do not smoke.

7.3. Specific end use(s)

Surface disinfectant. For professional use only.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Threshold Limit Value (TLV) of Isopropyl alcohol:

- USA: the ACGIH recommends a TWA of 400 ppm (980 mg/m³) and a STEL of 500 ppm (1225 mg/m³).
- FRANCE INRS VLE 480ppm (980mg/m³)
- GERMANY MAK 200ppm (500mg/m³)

Exposition limit value for the propellant: Butane (TWA: 800 ppm), Propane (TWA:1000 ppm).

With the aim of not exceeding these values during the use, it is recommended to ventilate the room after the product application in a large surface of a closed room (provided that the ratio surface/volum of the room is higher than 1m²/20m³).

8.2. Exposure controls

Hygienic measures: Do not eat, drink or smoke during use.

Equipment to provide adequate personal protection: non specific protection equipment is required.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Aspect: Liquid (Actives) + Gas (Propellent)

Odour: characteristic (alcohol)

Solubility in water: 100% soluble (20 °C)

Flammability: Flammable

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pH: 7 – 8

Density (product without propellant): 0.88 – 0.90 g/cc

Pressure: 5 kg/cm² (20°C) / 8 kg/cm² (50°C)

9.2. Other information

Data for Isopropyl Alcohol

Flash Point: 12 °C

Relative density of vapour: > 1.0

Data for the propellant

Vapour pressure: 3.2 kg/cm² (20°C)

Vapour density (air = 1): 2°C

Autoflammability: 460°C

Explosive properties (butane):

Low explosive limit: 1.9%

Upper explosive limit: 8.5%

Heat of combustion: -680.84 Kcal/ml at 25°C (liquid)

Solubility: alcohol, ether, chloroform

Octanol-water partition coefficient: log P_{ow} = 2.76

10. STABILITY AND REACTIVITY

10.1. Reactivity

It does not present dangerous reactions. The solutions don't react with acids, bases, oxidising agents, organic peroxides, molecules with sulfhydryc groups or heavy metals. It is non-stable in presence of strong oxidising agents or strong bases.

10.2. Chemical stability

Product is stable in recommended conditions of handling and storage.

10.3 Possibility of hazardous reactions

It does not present.

10.4. Conditions to avoid

Keep the product far from Ignition and Heat Sources. The propellant can produce dangerous gases in case of decomposition, in contact with a flame or heat metal surfaces.

10.5. Incompatible materials

Non applicable

10.6. Hazardous decomposition products

Non applicable.

11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity:

Oral route: DL₅₀ (oral route) > 2000 mg/kg. It is not harmful by ingestion.

Through skin and/or eyes: LD₅₀ (dermal way) > 2000 mg/kg

*Skin irritation: It is non irritating.

*Eye irritation: Irritating to the eyes. Isopropanol is irritating at the concentration in the product.

*Skin sensitisation: It does not cause hypersensitisation.

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The propellant is a simple asphyxiating gas, due to oxygen displacement in the air. It can cause adversal effects on the SNC. LC₅₀ (isobutane): 52 mg/kg/1h (inhalation-mouse).

Isopropyl alcohol is irritating by inhalation and for the eyes. It is slightly toxic in contact with the skin.

Corrosiveness: Not corrosive.

Carcinogenicity: The propellant contains less than 0.1% of 1,3-butadiene, it is not classified as carcinogenic.

Mutagenicity: Not mutagenic

Toxicity for reproduction: Not toxic for reproduction

12. ECOLOGICAL INFORMATION

12.1. Toxicity: Chronic aquatic toxicity:

The product is harmful to aquatic life with long lasting effects

In order to avoid human and environmental risks, follow the instructions for use.

12.2. Persistence and degradability

The product has powerful bactericide, virucide, and fungicide action, hence it could affect the EDAR microbial flora.

It contains surfactant and therefore can cause foam in EDAR.

12.3. Bioaccumulative potential

Not available.

12.4. Movility in soil

Not available

12.5. Results of PBT and vPvB assessment

This product is not identified as a PBT/vPvB substance

12.6. Other adverse effects

Harmful to aquatic organisms

Summary ecological information:

Isopropyl alcohol

- *Mobility:*
 - The product is soluble in water and it will probably remain in water.
- *Persistence and degradability:*
 - Easily biodegradable, according to OECD standards.
 - Easily eliminated in a sewage treatment.
- *Bioaccumulation:*
 - A low acute toxicity is predicted for aquatic organisms.
 - No long-term effects are predicted for aquatic organisms.

Propellant (Propel45 / LPG: Liquefied Petroleum Gas)

- *Persistance and degradability:*

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- LPG in the environment show an intense degradability. The product is biodegradable in the soil, specially under acclimatized conditions. The estimated component evaporation half-life is from 2.2h (river) to 3.0 days (lakes). At room temperature, LPG are in gaseous phase in the atmosphere, where they are degraded by chemical reactions, with a half life of 6.9 days.
- *Mobility / bioaccumulation:*
 - Does not show bioaccumulation problems, nor incidence on the food chain. The product has an estimated bioconcentration factor (FBC) of 74 and a log Kow 2.76, indicating that the bioconcentration in aquatic organisms is minimal. The soil mobility is high.
- *Effect to the environment / ecotoxicity:*
 - Due to its high volatility and low solubility, LPGs do not show water or ground contamination risks. Propane, butane and isobutane are common atmosphere pollutants in urban zones; they mainly come from car combustion.

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Package product surplus or waste resulting from normal use. Label it for identification purposes and seal it. Dirty, empty recipients should be handled in the same manner. The product may be taken to a controlled incineration site, always according to local regulations.

14. TRANSPORT INFORMATION

14.1. UN number

1950

14.2. UN proper shipping name

Flammable aerosol

14.3. Transport hazard class(es)

Class 2.1

14.4. Packaging group

N.A.

14.5. Environmental hazards

Not applicable

14.6. Special precautions for user

Not applicable

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

ONU number: 1950

ADR Classification:

- Class: 2 (Gas)
- Classification: 5F
- Label: 2.1

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RID Classification:

- Classification: 5C
- Label: 2.2 + B

IMDG Classification:

- Class: 2.1

Air (IATA/ICAO):

ONU 1950 – Flammable aerosol

Division 2.1 – Flammable gases

Label: flammable gas

Passenger aircraft: Packaging instructions 203/Y203

Max. net quantity 75 kg/30 kg

Cargo aircraft: Packaging instructions 203

Max. net quantity 150 kg

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

The information for safety and health with respect to the label of this product is in accordance with the European Union regulation: n° 1907/2006, 453/2010 and 830/2015.

European legislation: Regulation (EC) n° 1272/2008

15.2. Chemical safety assessment: not required

16. OTHER INFORMATION

Other information: The text in the SDS which has changed since the last version.

Complete text of hazard statements as referred to in sections 2 and 3:

H220: Extremely flammable gas

H225: Highly flammable liquid and vapour

H226: Flammable liquid and vapour

H302: Harmful if swallowed

H312: Harmful in contact with skin

H314: Causes severe skin burns and eye damage

H315: Causes skin irritation

H317: May cause an allergic skin reaction

H319: Causes serious eye irritation

H336: May cause drowsiness or dizziness

H410: Very toxic to aquatic life with long lasting effects

Formation advice:

The product must be handled by specialized personnel, following manufacturer instructions.

Changes from last version refer to format and content of EC Regulation 453/2010.

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Calculation method determination according to 1272/2008 Regulation has been used for the classification of the mixture.

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