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 : 2000 NUCL NF - AEROSOL

Product code : 858 A.

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

Cutting oil

Professional use

1.3. Details of the supplier of the safety data sheet

Registered company name : ORAPI.

Address : PARC INDUSTRIEL DE LA PLAINE DE L'AIN - 225 ALLEE DES CEDRES.01150.SAINT-VULBAS.FRANCE. Telephone : 33-(0)4-74-40-20-20. Fax : 33-(0)4-74-40-20-21.

fds@orapi.com

1.4. Emergency telephone number : 33-(0)1-45-42-59-59.

Association/Organisation : INRS .

Other emergency numbers

Emergency Action: In the event of a medical enquiry involving this product, please contact your doctor or local hospital accident and emergency department.

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 1 (Aerosol 1, H222 - H229).

Hazardous to the aquatic environment - Chronic hazard, Category 3 (Aquatic Chronic 3, H412).

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

2.2. Label elements

Mixture for aerosol application.

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

Hazard pictograms :

| , she | |
|---------------------------------|--|
| <u>C</u> 2 | |
| GHS02 | |
| Signal Word : | |
| DANGER | |
| Hazard statements : | |
| H222 | Extremely flammable aerosol. |
| H229 | Pressurised container: May burst if heated. |
| H412 | Harmful to aquatic life with long lasting effects. |
| Precautionary statements - Gene | eral : |
| P102 | Keep out of reach of children. |
| Precautionary statements - Prev | vention : |
| 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. |
| P260 | Do not breathe spray. |
| P271 | Use only outdoors or in a well-ventilated area. |
| P273 | Avoid release to the environment. |
| Precautionary statements - Stor | age : |
| P410 + P412 | Protect from sunlight. Do no expose to temperatures exceeding 50 oC/122oF. |

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.

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

| (EC) 1272/2008 | Note | % |
|-------------------------|--|---|
| GHS04 | [1] | 2.5 <= x % < 10 |
| Wng | [7] | |
| Press. Gas, H280 | | |
| | | |
| GHS07, GHS09 | | 2.5 <= x % < 10 |
| Wng | | |
| Acute Tox. 4, H302 | | |
| Skin Irrit. 2, H315 | | |
| Eye Irrit. 2, H319 | | |
| Aquatic Chronic 2, H411 | | |
| | GHS04 Wng Press. Gas, H280 GHS07, GHS09 Wng Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 | GHS04 [1] Wng [7] Press. Gas, H280 [7] GHS07, GHS09 [7] Wng Acute Tox. 4, H302 Skin Irrit. 2, H315 [5] Eye Irrit. 2, H319 [7] |

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 :

Bring to the fresh air.

Consult a physician in case of disorder.

In the event of splashes or contact with eyes :

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

If there is any pain, redness or visual impairment, consult an ophthalmologist.

In the event of splashes or contact with skin :

Remove clothing impregnated and wash carefully the skin with some water and some soap or use a known cleaner.

Not to use solvents or thinners.

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

No data available.

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

No data available.

SECTION 5 : FIREFIGHTING MEASURES

Chemical powders, carbon dioxide and other extinguishing gas are suitable for small fires.

5.1. Extinguishing media

Keep packages near the fire cool, to prevent pressurised containers from bursting.

Suitable methods of extinction

In the event of a fire, use :

- sprayed water or water mist
- water with AFFF (Aqueous Film Forming Foam) additive
- foam

- multipurpose ABC powder

- BC powder
- carbon dioxide (CO2)

Prevent the effluent of fire-fighting measures from entering drains or waterways.

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)
- aldehydes

- various hydrocarbons

5.3. Advice for firefighters

Due to the toxicity of the gas emitted on thermal decomposition of the products, fire-fighting personnel are to be equipped with autonomous insulating breathing apparatus.

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 non first aid worker

Because of the organic solvents contained in the mixture, eliminate sources of ignition and ventilate the area.

Avoid contact with skin and eyes.

Avoid inhalation of vapours.

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.

Avoid contact with skin, eyes and clothings.

Do not breathe vapours, fumes and fog.

Fire prevention :

Handle in well-ventilated areas.

Vapours are heavier than air. They can spread along the ground and form mixtures that are explosive with air.

Prevent the formation of flammable or explosive concentrations in air and avoid vapor concentrations higher than the occupational exposure limits.

Do not spray on a naked flame or any incandescent material.

Do not pierce or burn, even after use.

Use the mixture in premises free of naked flames or other sources of ignition and ensure that electrical equipment is suitably protected.

Keep packages tightly closed and away from sources of heat, sparks and naked flames.

Do not use tools which may produce sparks. Do not smoke.

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.

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.

Keep the container tightly closed in a dry, well-ventilated place.

Keep away from all sources of ignition - do not smoke.

Keep well away from all sources of ignition, heat and direct sunlight.

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 the container away from heat, bad weather, dampness and freezing.

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 l | imits : | | | | | |
|--------------------------|------------------|------------------|-----------------|----------------|------------|----------|
| - European Union (2009 | 9/161/EU, 2006 | /15/EC, 2000/39 | 9/EC, 98/24/EC) | | | |
| CAS | VME-mg/m3: | VME-ppm : | VLE-mg/m3: | VLE-ppm : | Notes : | |
| 124-38-9 | 9000 | 5000 | - | - | - | |
| - Germany - AGW (BA) | uA - TRGS 900 | , 21/06/2010) : | | | | |
| CAS | VME : | VME : | Excess | Notes | | |
| 124-38-9 | 5000 ml/m3 | 9100 mg/m3 | 2(II) | DFG, EU | | |
| - Belgium (Order of 19/ | 05/2009, 2010) | : | | | | |
| CAS | TWA : | STEL : | Ceiling : | Definition : | Criteria : | |
| 124-38-9 | 5000 ppm | 30000 ppm | - | - | - | |
| - France (INRS - ED984 | 4 :2008) : | | | | | |
| CAS | VME-ppm : | VME-mg/m3: | VLE-ppm : | VLE-mg/m3: | Notes : | TMP No : |
| 124-38-9 | 5000 | 9000 | - | - | - | - |
| - Spain (Instituto Nacio | nal de Segurida | d e Higiene en e | l Trabajo (INSH | T), Mayo 2010) |): | |
| CAS | TWA : | STEL : | Ceiling : | Definition : | Criteria : | |
| 124-38-9 | 5000 ppm | 15000 ppm | - | - | - | |
| - Netherlands / MAC-w | aarde (SER, 4 N | fay 2010) : | | | | |
| CAS | TWA : | STEL : | Ceiling : | Definition : | Criteria : | |
| 124-38-9 | 5000 ppm | - | - | - | - | |
| - Poland (2009) : | | | | | | |
| CAS | TWA : | STEL : | Ceiling : | Definition : | Criteria : | |
| 124-38-9 | 9000 mg/m3 | 27000 mg/m3 | - | - | - | |
| Czech Republic (Regula | ation No. 361/20 | 007): | | | | |
| CAS | TWA : | STEL : | Ceiling : | Definition : | Criteria : | |
| 124-38-9 | 9000 mg/m3 | 45000 mg/m3 | - | - | - | |
| - Switzerland (SUVA 2 | 009): | | | | | |
| CAS | VME-mg/m3: | VME-ppm : | VLE-mg/m3: | VLE-ppm : | Temps : | RSB : |
| 124-38-9 | 9000 | 5000 | - | - | - | - |
| - UK / WEL (Workplace | e exposure limit | s, EH40/2005, 2 | 2007): | | | |
| | | | | | | |

| 124-38-9 | TWA : | STEL : | Ceiling : | Definition : | Criteria : |
|--|--|---------------------|--|--|--|
| 124-38-2 | 5000 ppm | 15000 ppm | - | - | - |
| 8.2. Exposure contr | ols | | | | |
| Personal protection | measures, such a | s personal prote | ctive equipme | nt | |
| Use personal prote | ctive equipment th | at is clean and ha | as been properl | y maintained. | |
| Store personal prot | | - | - | | |
| Never eat, drink o especially in confir | | e. Remove and | wash contamin | nated clothing bet | fore re-using. Ensure that there is adequate ventilation |
| - Eye / face protection | on | | | | |
| Avoid contact with | • | | | | |
| Use eye protectors | designed to protect | t against liquid s | plashes | | |
| Before handling, w | ear safety goggles | in accordance w | ith standard EN | N166. | |
| - Hand protection | | | | | |
| Type of gloves reco | ommended : | | | | |
| - Nitrile rubber (bu | itadiene-acrylonitri | le copolymer rub | ober (NBR)) | | |
| - PVA (Polyvinyl a | alcohol) | | | | |
| - Body protection | | | | | |
| Work clothing wor | n by personnel sha | ll be laundered r | egularly. | | |
| After contact with | the product, all par | ts of the body th | at have been so | oiled must be was | ned. |
| - Respiratory protection | ction | | | | |
| In the event of insu | ifficient ventilatior | i, wear a respirate | ory apparatus o | of protection. | |
| Respirator with con | mbination filter for | vapour/particula | ate (EN 14387) |). | |
| ECTION 9 : PHYSI | CAL AND CHEN | ALCAL DDODE | DTTEG | | |
| | | | | | |
| 9.1. Information on | basic physical an | | | | |
| 9.1. Information on General information | basic physical an | | erties | | |
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| 9.1. Information on General information Physical state : Important health, sa | basic physical an n : | d chemical prop | erties Flui Spra | ıy. | |
| 9.1. Information on General information Physical state : Important health, so pH : | basic physical an n : afety and environ | d chemical prop | erties Flui Spra tion Not | relevant. | |
| 9.1. Information on General information Physical state : Important health, sa pH : Vapour pressure (5) | basic physical an n : afety and environ | d chemical prop | erties Flui Spra tion Not Not | relevant. relevant. | |
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| 9.1. Information on General information Physical state : Important health, sa pH : Vapour pressure (5 Density : Water solubility : | basic physical an n : afety and environ: 50°C) : | d chemical prop | erties Flui Spra tion Not 0.88 Inso | relevant. relevant. luble. | |
| 9.1. Information on General information Physical state : Important health, sa pH : Vapour pressure (5 Density : Water solubility : Chemical combustion | basic physical an n : afety and environ 50°C) : ion heat : | d chemical prop | erties Flui Spra tion Not 0.88 Inso Not | relevant. relevant. luble. specified. | |
| 9.1. Information on General information Physical state : Important health, sa pH : Vapour pressure (5 Density : Water solubility : Chemical combusti Inflammation time | basic physical an n : afety and environ 50°C) : ion heat : : | d chemical prop | erties Flui Spra tion Not 0.88 Inso Not Not | relevant. relevant. luble. specified. specified. | |
| 9.1. Information on General information Physical state : Important health, sa pH : Vapour pressure (5 Density : Water solubility : Chemical combusti Inflammation time Deflagration densit | basic physical an n : afety and environ 50°C) : ion heat : : ty : | d chemical prop | erties Flui Spra tion Not 0.88 Inso Not Not Not | relevant. relevant. luble. specified. specified. specified. | |
| 9.1. Information on General information Physical state : Important health, sa pH : Vapour pressure (5 Density : Water solubility : Chemical combusti Inflammation time Deflagration density Inflammation dista | basic physical an n : afety and environ 50°C) : ion heat : : ty : | d chemical prop | erties Flui Spra tion Not 0.88 Inso Not Not Not Not | relevant. relevant. luble. specified. specified. specified. specified. | |
| 9.1. Information on General information Physical state : Important health, sa pH : Vapour pressure (5 Density : Water solubility : Chemical combusti Inflammation time Deflagration densit Inflammation dista Flame height : | basic physical an n : afety and environ 50°C) : ion heat : : ty : | d chemical prop | erties Flui Spra tion Not 0.88 Inso Not Not Not Not Not | relevant. relevant. luble. specified. specified. specified. specified. specified. | |
| 9.1. Information on General information Physical state : Important health, sa pH : Vapour pressure (5 Density : Water solubility : Chemical combusti Inflammation time Deflagration densit Inflammation dista Flame height : Flame duration : | basic physical an n : afety and environ 50°C) : ion heat : : ty : nce : | d chemical prop | erties Flui Spra tion Not 0.88 Inso Not Not Not Not Not | relevant. relevant. luble. specified. specified. specified. specified. | |
| 9.1. Information on General information Physical state : Important health, sa pH : Vapour pressure (5 Density : Water solubility : Chemical combusti Inflammation time Deflagration densit Inflammation dista Flame height : | basic physical an n : afety and environ 50°C) : ion heat : : ty : nce : | d chemical prop | erties Flui Spra tion Not 0.88 Inso Not Not Not Not Not | relevant. relevant. luble. specified. specified. specified. specified. specified. | |

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.

10.4. Conditions to avoid

Any apparatus likely to produce a flame or to have a metallic surface at high temperature (burners, electric arcs, furnaces etc.) must not be allowed on the premises.

Avoid :

- heating

- heat
- flames and hot surfaces
- sources of ignition

10.5. Incompatible materials

- Keep away from :
- strong oxidising agents

10.6. Hazardous decomposition products

The thermal decomposition may release/form :

- carbon monoxide (CO)
- carbon dioxide (CO2)
- aldehyde
- various hydrocarbons

SECTION 11 : TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Splashes in the eyes may cause irritation and reversible damage

11.1.1. Substances

No toxicological data available for the substances.

11.1.2. Mixture

No toxicological data available for the mixture.

SECTION 12 : ECOLOGICAL INFORMATION

Harmful to aquatic life with long lasting effects.

The product must not be allowed to run into drains or waterways.

12.1. Toxicity

12.1.2. Mixtures

No aquatic toxicity data available for the mixture.

12.2. Persistence and degradability

No data available.

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

No data available.

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.

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, flammable

14.3. Transport hazard class(es)

- Classification :



2.1

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 | 5F | - | 2.1 | - | 1 L | 190 327 344 625 | E0 | 2 | D |

| IMDG | Class | 2°Label | Pack gr. | LQ | EMS | Provis. | EQ |
|------|-------|----------|----------|-------|---------|----------------|----|
| | 2.1 | See SP63 | - | SP277 | F-D,S-U | 63 190 277 327 | E0 |
| | | | | | | 344 959 | |

| IATA | Class | 2°Label | Pack gr. | Passager | Passager | Cargo | Cargo | note | EQ |
|------|-------|---------|----------|----------|----------|-------|--------|------|----|
| | 2.1 | - | - | 203 | 75 kg | 203 | 150 kg | A145 | E0 |
| | | | | | | | | A167 | |
| | | | | | | | | A802 | |
| | 2.1 | - | - | Y203 | 30 kg G | - | - | A145 | E0 |
| | | | | | | | | 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

- Classification and labelling information included in section 2:

The following regulations have been used:

- Directive 75/734/CEE modified by directive 2013/10/UE
- EU Regulation No. 1272/2008 amended by EU Regulation No. 487/2013.
- EU Regulation No. 1272/2008 amended by EU Regulation No. 758/2013.
- EU Regulation No. 1272/2008 amended by EU Regulation No. 944/2013.
- EU Regulation No. 1272/2008 amended by EU Regulation No. 605/2014.
- EU Regulation No. 1272/2008 amended by EU Regulation No. 1297/2014.
- Container information:

No data available.

- Particular provisions :

No data available.

15.2. Chemical safety assessment

No data available.

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. |
|------|---|
| H302 | Harmful if swallowed. |
| H315 | Causes skin irritation. |
| H319 | Causes serious eye irritation. |
| H411 | Toxic to aquatic life with long lasting effects. |
| | |

Abbreviations :

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).

GHS02 : Flame

PBT: Persistent, bioaccumulable and toxic.

vPvB : Very persistent, very bioaccumulable.

SVHC : Substances of very high concern.