# SAFETY DATA SHEET

Based upon Regulation (EC) No 1907/2006, as amended by Regulation (EU) No 2020/878

# NOVAIR FORCE

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

### 1.1. Product identifier

**Product name** : NOVAIR FORCE
**Registration number REACH** : Not applicable (mixture)
**Product type REACH** : Mixture

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

**1.2.1 Relevant identified uses**

Detergent according to Regulation (EC) No 648/2004

**1.2.2 Uses advised against**

No uses advised against known

### 1.3. Details of the supplier of the safety data sheet

**Supplier of the safety data sheet**

Novatio*
Industrielaan 5B
B-2250 Olen
☎ +32 14 25 76 40
🖷 +32 14 22 02 66
info@novatio.be
*NOVATIO is a registered trademark of Novatech International N.V.

**Manufacturer of the product**

Novatech International N.V.
Industrielaan 5B
B-2250 Olen
☎ +32 14 85 97 37
🖷 +32 14 85 97 38
info@novatech.be

### 1.4. Emergency telephone number

24h/24h (Telephone advice: English, French, German, Dutch) :
+32 14 58 45 45 (BIG)

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

Classified as dangerous according to the criteria of Regulation (EC) No 1272/2008

| Class | Category | Hazard statements |
|---|---|---|
| Aerosol | category 3 | H229: Pressurised container: May burst if heated. |

### 2.2. Label elements

**Hazard pictograms**

No pictogram is used

**Signal word** Warning

**H-statements**

H229 Pressurised container: May burst if heated.

**P-statements**

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.
P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122°F.

### 2.3. Other hazards

No other hazards known

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

| Name<br>REACH Registration No | CAS No<br>EC No | Conc. (C) | Classification according to CLP | Note | Remark | M-factors and ATE |
|---|---|---|---|---|---|---|
| 1,3,3,3-tetrafluoro-1-propene<br>01-0000019758-54 | 471-480-0 | C>30 % | Press. Gas - Liquefied gas; H280 | | Propellant | |

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

**General:**
If you feel unwell, consult a doctor/medical service.

**After inhalation:**
Remove victim into fresh air. In case of respiratory problems, consult a doctor/medical service.

**After skin contact:**
If possible, wipe up/dry remove chemical. Then rinse/shower immediately with (lukewarm) water.

**After eye contact:**
Rinse immediately with (lukewarm) water. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation persists, consult a doctor/medical service.

**After ingestion:**
Rinse mouth with water. If you feel unwell, consult a doctor/medical service. Do not wait for symptoms to occur to consult Poison Center.

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

**4.2.1 Acute symptoms**

**After inhalation:**
No effects known.

**After skin contact:**
No effects known.

**After eye contact:**
Redness of the eye tissue.

**After ingestion:**
Abdominal pain. Headache. Diarrhoea. Vomiting. Movement disturbances.

**4.2.2 Delayed symptoms**
No effects known.

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

If applicable and available it will be listed below.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

**5.1.1 Suitable extinguishing media:**
Small fire: Water, Quick-acting ABC powder extinguisher, Quick-acting BC powder extinguisher, Quick-acting CO2 extinguisher.
Major fire: Quantities of water.

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

On burning: release of toxic and corrosive gases/vapours (hydrofluoric acid, carbon monoxide - carbon dioxide). Pressurised container: May burst if heated.

### 5.3. Advice for firefighters

**5.3.1 Instructions:**
If exposed to fire cool the closed containers by spraying with water. Physical explosion risk: cool from behind cover. Do not move the load if exposed to heat. After cooling: persistant risk of physical explosion. Dilute toxic gases with water spray. Take account of toxic/corrosive precipitation water.

**5.3.2 Special protective equipment for fire-fighters:**
Gloves (EN 374). Protective clothing (EN 14605 or EN 13034). Heat/fire exposure: self-contained breathing apparatus (EN 136 + EN 137).

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

No naked flames.

**6.1.1 Protective equipment for non-emergency personnel**
See section 8.2

**6.1.2 Protective equipment for emergency responders**
Gloves (EN 374). Protective clothing (EN 14605 or EN 13034).

Suitable protective clothing
See section 8.2

### 6.2. Environmental precautions

No data available

### 6.3. Methods and material for containment and cleaning up

Take up liquid spill into inert absorbent material. Scoop absorbed substance into closing containers. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling.

### 6.4. Reference to other sections

See section 13.

## SECTION 7: Handling and storage

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

### 7.1. Precautions for safe handling

Keep away from naked flames/heat. Observe normal hygiene standards.

### 7.2. Conditions for safe storage, including any incompatibilities

**7.2.1 Safe storage requirements:**
Storage temperature: < 50 °C. Meet the legal requirements. Fireproof storeroom. Protect against frost. Keep out of direct sunlight.

**7.2.2 Keep away from:**
Heat sources.

**7.2.3 Suitable packaging material:**
Aerosol.

**7.2.4 Non suitable packaging material:**
No data available

### 7.3. Specific end use(s)

If applicable and available, exposure scenarios are attached in annex. See information supplied by the manufacturer.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

**8.1.1 Occupational exposure**

**a) Occupational exposure limit values**
If limit values are applicable and available these will be listed below.

**b) National biological limit values**
If limit values are applicable and available these will be listed below.

**8.1.2 Sampling methods**
If applicable and available it will be listed below.

**8.1.3 Applicable limit values when using the substance or mixture as intended**
If limit values are applicable and available these will be listed below.

**8.1.4 Threshold values**
If applicable and available it will be listed below.

**8.1.5 Control banding**
If applicable and available it will be listed below.

### 8.2. Exposure controls

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

**8.2.1 Appropriate engineering controls**
Keep away from naked flames/heat. Carry operations in the open/under local exhaust/ventilation or with respiratory protection.

**8.2.2 Individual protection measures, such as personal protective equipment**
Observe normal hygiene standards. Do not eat, drink or smoke during work.

a) Respiratory protection:
Respiratory protection not required in normal conditions.

b) Hand protection:
Protective gloves against chemicals (EN 374).

| Materials | Measured breakthrough time | Thickness | Protection index | Remark |
|---|---|---|---|---|
| nitrile rubber | > 480 minutes | 0.35 mm | Class 6 | |

c) Eye protection:
Eye protection not required in normal conditions.

d) Skin protection:
Protective clothing (EN 14605 or EN 13034).

**8.2.3 Environmental exposure controls:**
See sections 6.2, 6.3 and 13

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

| | |
|---|---|
| Physical form | Aerosol |
| Odour | Characteristic odour |
| Odour threshold | No data available in the literature |
| Colour | No data available on colour |
| Particle size | Not applicable (aerosol) |
| Explosion limits | No data available in the literature |
| Flammability | Not classified as flammable |
| Log Kow | Not applicable (mixture) |
| Dynamic viscosity | Not applicable (aerosol) |
| Kinematic viscosity | Not applicable (aerosol) |
| Melting point | Not applicable (aerosol) |
| Boiling point | -19 °C ; Liquid |
| Relative vapour density | No data available in the literature |
| Vapour pressure | 4.2 hPa ; 20 °C ; Liquid |
| Solubility | Water ; insoluble |
| Relative density | 1.17 ; 20 °C ; Liquid |
| Absolute density | 1170 kg/m³ ; 20 °C ; Liquid |
| Decomposition temperature | No data available in the literature |
| Auto-ignition temperature | Not applicable (aerosol) |
| Flash point | Not applicable (aerosol) |
| pH | Not applicable (non-soluble in water) |

### 9.2. Other information

No data available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Heating increases the fire hazard.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No data available.

### 10.4. Conditions to avoid

**Precautionary measures**

Keep away from naked flames/heat.

### 10.5. Incompatible materials

No data available.

### 10.6. Hazardous decomposition products

On burning: release of toxic and corrosive gases/vapours (hydrofluoric acid, carbon monoxide - carbon dioxide).

## SECTION 11: Toxicological information

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

**11.1.1 Test results**

**Acute toxicity**

NOVAIR FORCE

No (test)data on the mixture available

**Conclusion**

Not classified for acute toxicity

**Corrosion/irritation**

NOVAIR FORCE

No (test)data on the mixture available

**Conclusion**

Not classified as irritating to the skin

Not classified as irritating to the eyes

**Respiratory or skin sensitisation**

NOVAIR FORCE

No (test)data on the mixture available

**Conclusion**

Not classified as sensitizing for skin

**Specific target organ toxicity**

NOVAIR FORCE

No (test)data on the mixture available

**Conclusion**

Not classified for subchronic toxicity

**Mutagenicity (in vitro)**

NOVAIR FORCE

No (test)data on the mixture available

**Mutagenicity (in vivo)**

NOVAIR FORCE

No (test)data on the mixture available

**Conclusion**

Not classified for mutagenic or genotoxic toxicity

**Carcinogenicity**

NOVAIR FORCE

No (test)data on the mixture available

**Conclusion**

Not classified for carcinogenicity

**Reproductive toxicity**

NOVAIR FORCE

No (test)data on the mixture available

**Conclusion**

Not classified for reprotoxic or developmental toxicity

**Toxicity other effects**

NOVAIR FORCE

No (test)data on the mixture available

**Chronic effects from short and long-term exposure**

NOVAIR FORCE

No effects known.

### 11.2. Information on other hazards

No evidence of endocrine disrupting properties

## SECTION 12: Ecological information

### 12.1. Toxicity

NOVAIR FORCE

No (test)data on the mixture available

Judgement of the mixture is based on the relevant ingredients

**Conclusion**

Not classified as dangerous for the environment according to the criteria of Regulation (EC) No 1272/2008

### 12.2. Persistence and degradability

**Water**

Contains non readily biodegradable component(s)

### 12.3. Bioaccumulative potential

NOVAIR FORCE

**Log Kow**

| Method | Remark | Value | Temperature | Value determination |
|---|---|---|---|---|
| | Not applicable (mixture) | | | |

**Conclusion**

Does not contain bioaccumulative component(s)

### 12.4. Mobility in soil

No (test)data on mobility of the component(s) available

### 12.5. Results of PBT and vPvB assessment

Does not contain component(s) that meet(s) the criteria of PBT and/or vPvB as listed in Annex XIII of Regulation (EC) No 1907/2006.

### 12.6. Endocrine disrupting properties

No evidence of endocrine disrupting properties

### 12.7. Other adverse effects

NOVAIR FORCE

**Greenhouse gases**

Contains component(s) included in Annex II of the list of fluorinated greenhouse gases (Regulation (EU) No 517/2014)

**Ozone-depleting potential (ODP)**

Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009)

## SECTION 13: Disposal considerations

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

### 13.1. Waste treatment methods

**13.1.1 Provisions relating to waste**

**European Union**

Can be considered as non hazardous waste according to Directive 2008/98/EC, as amended by Regulation (EU) No 1357/2014 and Regulation (EU) No 2017/997.

Waste material code (Directive 2008/98/EC, Decision 2000/0532/EC).

20 01 30 (separately collected fractions (except 15 01): detergents other than those mentioned in 20 01 29). Depending on branch of industry and production process, also other waste codes may be applicable.

**13.1.2 Disposal methods**

Specific treatment. Remove waste in accordance with local and/or national regulations.

**13.1.3 Packaging/Container**

**European Union**

Waste material code packaging (Directive 2008/98/EC).

15 01 04 (metallic packaging).

## SECTION 14: Transport information

### Road (ADR)

14.1. UN number

| | |
|---|---|
| UN number | 1950 |

14.2. UN proper shipping name

| | |
|---|---|
| Proper shipping name | aerosols |

14.3. Transport hazard class(es)

| | |
|---|---|
| Hazard identification number | |
| Class | 2 |
| Classification code | 5A |

14.4. Packing group

| | |
|---|---|
| Packing group | |
| Labels | 2.2 |

14.5. Environmental hazards

| | |
|---|---|
| Environmentally hazardous substance mark | no |

14.6. Special precautions for user

| | |
|---|---|
| Special provisions | 190 |
| Special provisions | 327 |
| Special provisions | 344 |
| Special provisions | 625 |
| Limited quantities | Combination packagings: not more than 1 liter per inner packaging for liquids. A package shall not weigh more than 30 kg. (gross mass) |

### Rail (RID)

14.1. UN number

| | |
|---|---|
| UN number | 1950 |

14.2. UN proper shipping name

| | |
|---|---|
| Proper shipping name | aerosols |

14.3. Transport hazard class(es)

| | |
|---|---|
| Hazard identification number | 20 |
| Class | 2 |
| Classification code | 5A |

14.4. Packing group

| | |
|---|---|
| Packing group | |
| Labels | 2.2 |

14.5. Environmental hazards

| | |
|---|---|
| Environmentally hazardous substance mark | no |

14.6. Special precautions for user

| | |
|---|---|
| Special provisions | 190 |
| Special provisions | 327 |
| Special provisions | 344 |
| Special provisions | 625 |
| Limited quantities | Combination packagings: not more than 1 liter per inner packaging for liquids. A package shall not weigh more than 30 kg. (gross mass) |

### Inland waterways (ADN)

14.1. UN number

| | |
|---|---|
| UN number | 1950 |

14.2. UN proper shipping name

| | |
|---|---|
| Proper shipping name | aerosols |

14.3. Transport hazard class(es)

| | |
|---|---|
| Class | 2 |
| Classification code | 5A |

14.4. Packing group

| | |
|---|---|
| Packing group | |
| Labels | 2.2 |

14.5. Environmental hazards

| | |
|---|---|
| Environmentally hazardous substance mark | no |

14.6. Special precautions for user

| | |
|---|---|
| Special provisions | 190 |
| Special provisions | 327 |
| Special provisions | 344 |
| Special provisions | 625 |
| Limited quantities | Combination packagings: not more than 1 liter per inner packaging for liquids. A package shall not weigh more than 30 kg. (gross mass) |

### Sea (IMDG/IMSBC)

14.1. UN number

| | |
|---|---|
| UN number | 1950 |

14.2. UN proper shipping name

| | |
|---|---|
| Proper shipping name | aerosols |

14.3. Transport hazard class(es)

| | |
|---|---|
| Class | 2.2 |

14.4. Packing group

| | |
|---|---|
| Packing group | |
| Labels | 2.2 |

14.5. Environmental hazards

| | |
|---|---|
| Marine pollutant | - |
| Environmentally hazardous substance mark | no |

14.6. Special precautions for user

| | |
|---|---|
| Special provisions | 190 |
| Special provisions | 277 |
| Special provisions | 327 |
| Special provisions | 344 |
| Special provisions | 381 |
| Special provisions | 63 |
| Special provisions | 959 |
| Limited quantities | Combination packagings: not more than 1 liter per inner packaging for liquids. A package shall not weigh more than 30 kg. (gross mass) |

14.7. Maritime transport in bulk according to IMO instruments

| | |
|---|---|
| Annex II of MARPOL 73/78 | Not applicable |

### Air (ICAO-TI/IATA-DGR)

14.1. UN number

| | |
|---|---|
| UN number | 1950 |

14.2. UN proper shipping name

| | |
|---|---|
| Proper shipping name | aerosols, non-flammable |

14.3. Transport hazard class(es)

| | |
|---|---|
| Class | 2.2 |

14.4. Packing group

| | |
|---|---|
| Packing group | |
| Labels | 2.2 |

14.5. Environmental hazards

| | |
|---|---|
| Environmentally hazardous substance mark | no |

14.6. Special precautions for user

| | |
|---|---|
| Special provisions | A145 |
| Special provisions | A167 |
| Special provisions | A802 |

| | |
|---|---|
| Special provisions | A98 |

Passenger and cargo transport

| | |
|---|---|
| Limited quantities: maximum net quantity per packaging | 30 kg G |

## SECTION 15: Regulatory information

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

**European legislation:**

VOC content Directive 2010/75/EU

| VOC content | Remark |
|---|---|
| 100 % | |
| 1170 g/l | |

Ingredients according to Regulation (EC) No 648/2004 and amendments

≥30% halogenated hydrocarbons

**National legislation Belgium**

NOVAIR FORCE

No data available

**National legislation The Netherlands**

NOVAIR FORCE

| | |
|---|---|
| Waterbezwaarlijkheid | B (4); Algemene Beoordelingsmethodiek (ABM) |

**National legislation France**

NOVAIR FORCE

No data available

**National legislation Germany**

NOVAIR FORCE

| | |
|---|---|
| WGK | 1; Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen (AwSV) - 18. April 2017 |

**National legislation United Kingdom**

NOVAIR FORCE

No data available

**Other relevant data**

NOVAIR FORCE

No data available

### 15.2. Chemical safety assessment

No chemical safety assessment has been conducted for the mixture.

## SECTION 16: Other information

**Full text of any H- and EUH-statements referred to under section 3:**

H229 Pressurised container: May burst if heated.
H280 Contains gas under pressure; may explode if heated.

| | |
|---|---|
| (*) | INTERNAL CLASSIFICATION BY BIG |
| ADI | Acceptable daily intake |
| AOEL | Acceptable operator exposure level |
| ATE | Acute Toxicity Estimate |
| CLP (EU-GHS) | Classification, labelling and packaging (Globally Harmonised System in Europe) |
| DMEL | Derived Minimal Effect Level |
| DNEL | Derived No Effect Level |
| EC50 | Effect Concentration 50 % |
| ErC50 | EC50 in terms of reduction of growth rate |
| LC50 | Lethal Concentration 50 % |
| LD50 | Lethal Dose 50 % |
| NOAEL | No Observed Adverse Effect Level |
| NOEC | No Observed Effect Concentration |
| OECD | Organisation for Economic Co-operation and Development |
| PBT | Persistent, Bioaccumulative & Toxic |
| PNEC | Predicted No Effect Concentration |
| STP | Sludge Treatment Process |
| vPvB | very Persistent & very Bioaccumulative |

The information in this safety data sheet is based on data and samples provided to BIG. The sheet was written to the best of our ability and according to the state of knowledge at that time. The safety data sheet only constitutes a guideline for the safe handling, use, consumption, storage, transport and disposal of the substances/preparations/mixtures mentioned under point 1. New safety data sheets are written from time to time. Only the most recent versions may be used. Unless indicated otherwise word for word on the safety data sheet, the information does not apply to substances/preparations/mixtures in purer form, mixed with other substances or in processes. The safety data sheet offers no quality specification for the substances/preparations/mixtures in question. Compliance with the instructions in this safety data sheet does not release the user from the obligation to take all measures dictated by common sense, regulations and recommendations or which are

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