

# 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

May contribute to the greenhouse effect

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Not applicable

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## 3.2. Mixtures

Name REACH Registration No	CAS No EC No	Conc. (C)	Classification according to CLP	Note	Remark	M-factors and ATE
trans-1,3,3,3-tetrafluoroprop-1-ene 01-0000019758-54	29118-24-9 471-480-0	C≤100%	Press. Gas - Liquefied gas; H280	(1)(2)	Propellant	

(1) For H- and EUH-statements in full: see section 16

(2) Substance with a Community workplace exposure limit

## 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: persistent 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. Exposure to fire/heat: keep upwind. Exposure to fire/heat: consider evacuation. Exposure to fire/heat: have neighbourhood close doors and windows.

#### 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

Reason for revision: 2; 3; 8; 15

Publication date: 2007-01-10

Date of revision: 2024-11-24

Revision number: 0600

BIG number: 44606

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## 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.

##### Germany

trans-1,3,3,3-Tetrafluorpropen	Time-weighted average exposure limit 8 h (TRGS 900)	1000 ppm (1)
	Time-weighted average exposure limit 8 h (TRGS 900)	4700 mg/m <sup>3</sup> (1)

(1) UF: 2 (II)

##### 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. Measure the concentration in the air regularly. 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:

Full face mask with filter type A at conc. in air > exposure limit.

##### 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).

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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
Colour	No data available on colour
Odour	Characteristic odour
Odour threshold	No data available in the literature
Melting point	Not applicable (aerosol)
Boiling point	-19 °C ; Liquid
Flammability	Not classified as flammable
Explosion limits	No data available in the literature
Flash point	Not applicable (aerosol)
Auto-ignition temperature	Not applicable (aerosol)
Decomposition temperature	No data available in the literature
pH	Not applicable (non-soluble in water)
Kinematic viscosity	Not applicable (aerosol)
Dynamic viscosity	Not applicable (aerosol)
Solubility	Water ; insoluble
Log Kow	Not applicable (mixture)
Vapour pressure	4.2 hPa ; 20 °C ; Liquid
Absolute density	1170 kg/m <sup>3</sup> ; 20 °C ; Liquid
Relative density	1.17 ; 20 °C ; Liquid
Relative vapour density	No data available in the literature
Particle size	Not applicable (aerosol)

### 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

Not classified as irritating to the respiratory system

Reason for revision: 2; 3; 8; 15

Publication date: 2007-01-10

Date of revision: 2024-11-24

Revision number: 0600

BIG number: 44606

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## Respiratory or skin sensitisation

### Novair Force

No (test) data on the mixture available

### Conclusion

Not classified as sensitizing for skin

Not classified as sensitizing for inhalation

## 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

## Aspiration hazard

### Novair Force

Not classified for aspiration 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

Reason for revision: 2; 3; 8; 15

Publication date: 2007-01-10

Date of revision: 2024-11-24

Revision number: 0600

BIG number: 44606

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## 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

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#### Greenhouse gases

Contains component(s) included in the list of substances which may contribute to the greenhouse effect (IPCC)

Contains component(s) included in Annex II of the list of fluorinated greenhouse gases (Regulation (EU) No 2024/573)

#### Ozone-depleting potential (ODP)

Not classified as dangerous for the ozone layer (Regulation (EC) No 2024/590)

## 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. Do not discharge into drains or the environment.

Dispose of at authorized waste collection point.

#### 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 or ID number

UN number	1950
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#### 14.2. UN proper shipping name

Proper shipping name	aerosols
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#### 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
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#### 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 or ID number

UN number	1950
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Reason for revision: 2; 3; 8; 15

Publication date: 2007-01-10

Date of revision: 2024-11-24

Revision number: 0600

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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 or ID number	
UN number/ID 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 or ID 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 or ID number	
UN number/ID number	1950
14.2. UN proper shipping name	
Proper shipping name	aerosols, non-flammable

Reason for revision: 2; 3; 8; 15

Publication date: 2007-01-10

Date of revision: 2024-11-24

Revision number: 0600

BIG number: 44606

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## 14.3. Transport hazard class(es)

Class	2.2
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## 14.4. Packing group

Packing group	
Labels	2.2

## 14.5. Environmental hazards

Environmentally hazardous substance mark	no
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## 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
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## 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	

Directive 2012/18/EU (Seveso III)

Not subject to registration according to Directive 2012/18/EU (Seveso III)

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

≥30% halogenated hydrocarbons

REACH Candidate list

Does not contain component(s) included in candidate list of substances of very high concern (SVHC) for authorisation (Article 59 of Regulation (EC) No 1907/2006)

REACH Annex XIV - Authorisation

Does not contain component(s) included in Annex XIV of Regulation (EC) No 1907/2006: list of substances subject to authorisation

REACH Annex XVII - Restriction

Does not contain component(s) subject to restrictions of Annex XVII of Regulation (EC) No 1907/2006: restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

#### National legislation Belgium

Novair Force

No data available

#### National legislation The Netherlands

Novair Force

Waterbezwaarlijkheid	B (4); Algemene Beoordelingsmethodiek (ABM)
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#### 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
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#### National legislation Austria

Novair Force

No data available

#### National legislation United Kingdom

Novair Force

No data available

#### National legislation Ireland

Novair Force

No data available

#### Other relevant data

Novair Force

No data available

### 15.2. Chemical safety assessment

No chemical safety assessment is required for a mixture.

Reason for revision: 2; 3; 8; 15

Publication date: 2007-01-10

Date of revision: 2024-11-24

Revision number: 0600

BIG number: 44606

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## 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
BCF	Bioconcentration Factor
BEI	Biological Exposure Indices
CLP (EU-GHS)	Classification, labelling and packaging (Globally Harmonised System in Europe)
DMEL	Derived Minimal Effect Level
DNEL	Derived No Effect Level
EC10	Effect Concentration 10 %
EC50	Effect Concentration 50 %
ErC50	EC50 in terms of reduction of growth rate
GLP	Good Laboratory Practice
LC0	Lethal Concentration 0 %
LC50	Lethal Concentration 50 %
LD50	Lethal Dose 50 %
LOAEC/LOAEL	Lowest Observed Adverse Effect Concentration/Lowest Observed Adverse Effect Level
NOAEC/NOAEL	No Observed Adverse Effect Concentration/No Observed Adverse Effect Level
NOEC/NOEL	No Observed Effect Concentration/No Observed Effect Level
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 necessary and/or useful based on the real applicable circumstances. BIG does not guarantee the accuracy or exhaustiveness of the information provided and cannot be held liable for any changes by third parties. This safety data sheet is only to be used within the European Union, Switzerland, Iceland, Norway and Liechtenstein. Any use outside of this area is at your own risk. Use of this safety data sheet is subject to the licence and liability limiting conditions as stated in your BIG licence agreement or when this is failing the general conditions of BIG. All intellectual property rights to this sheet are the property of BIG and its distribution and reproduction are limited. Consult the mentioned agreement/conditions for details.