SAFETY DATA SHEET

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



NOVAIR

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

1.1. Product identifier

Product name : NOVAIR

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

2 +32 14 25 76 40

4 +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

6-2250 Olen

2 +32 14 85 97 37 **4** +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

	classified as dafigerous according to the criteria of Regulation (LC) NO 1272/2008				
Class Category Hazard statements		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

Created by: Brandweerinformatiecentrum voor gevaarlijke stoffen vzw (BIG)

Technische Schoolstraat 43 A, B-2440 Geel

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878-16239-019-en

3.2. Mixtures

	CAS No EC No	Conc. (C)	Classification according to CLP	Note	lRemark	M-factors and ATE
1,3,3,3-tetrafluoro-1-propene 01-000019758-54	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 eve 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

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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.

$\bf 8.1.3$ 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

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).

	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

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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)
рН	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

No (test)data on the mixture available

Conclusion

Not classified for acute toxicity

Corrosion/irritation

NOVAIR

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

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No (test)data on the mixture available

Conclusion

Not classified as sensitizing for skin

Specific target organ toxicity

NOVAIR

No (test)data on the mixture available

Conclusion

Not classified for subchronic toxicity

Mutagenicity (in vitro)

NOVAIR

No (test)data on the mixture available

Mutagenicity (in vivo)

<u>NOVAIR</u>

No (test)data on the mixture available

Conclusion

Not classified for mutagenic or genotoxic toxicity

Carcinogenicity

NOVAIR

No (test)data on the mixture available

Conclusion

Not classified for carcinogenicity

Reproductive toxicity

NOVAIR

No (test)data on the mixture available

Conclusion

Not classified for reprotoxic or developmental toxicity

Toxicity other effects

<u>NOVAIR</u>

No (test)data on the mixture available

Chronic effects from short and long-term exposure

NOVAIR

No effects known.

11.2. Information on other hazards

No evidence of endocrine disrupting properties

SECTION 12: Ecological information

12.1. Toxicity

NOVAIR

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

Log Kow

Method	Remark	Value	Temperature	Value determination
	Not applicable (mixture)			

Conclusion

Does not contain bioaccumulative component(s)

12.4. Mobility in soil

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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

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)

UN number	1950
4.2. UN proper shipping name	
Proper shipping name	aerosols
4.3. Transport hazard class(es)	
Hazard identification number	
Class	2
Classification code	5A
4.4. Packing group	
Packing group	
Labels	2.2
4. <u>5. Environmental hazards</u>	
Environmentally hazardous substance mark	no
4. <u>6. Special precautions for user</u>	
Special provisions	190
Special provisions	327
Special provisions	344
Special provisions	625
Limited quantities	Combination packagings: not more than 1 liter per inner packaging fo liquids. A package shall not weigh more than 30 kg. (gross mass)

Rail (RID)

14. <u>1</u> . 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			

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6 Special procedutions for these	
.6. Special precautions for user Special provisions	190
	327
Special provisions	344
Special provisions	625
Special provisions	
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)
d waterways (ADN)	
1. UN number	1050
UN number	1950
2. UN proper shipping name	aerosols
Proper shipping name	aerosois
3. Transport hazard class(es)	
Class	2 5A
Classification code	DA
4. Packing group Packing group	
Labels	2.2
5. Environmental hazards	
Environmentally hazardous substance mark	no
6. Special precautions for user	IIIO
Special previsions	190
Special provisions	327
Special provisions	344
Special provisions	625
Limited quantities	Combination packagings: not more than 1 liter per inner packaging for
Laminea quantities	liquids. A package shall not weigh more than 30 kg. (gross mass)
(in con o)	
MDG/IMSBC)	
1. UN number	
UN number	1950
2. UN proper shipping name	
Proper shipping name	aerosols
3. Transport hazard class(es)	
Class	2.2
4. Packing group	
Packing group	2.2
Labels	2.2
5. Environmental hazards Marine pollutant	
Environmentally hazardous substance mark	no.
6. Special precautions for user	no
Special precautions for user	190
Special provisions	277
Special provisions	327
Special provisions Special provisions	344
 	381
Special provisions	63
Special provisions	959
Special provisions	
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)
Maritime transport in bulk according to IMO instruments	Induins: 4 hackage shall flut weigh filute that 30 kg. (81055 mass)
Annex II of MARPOL 73/78	Not applicable
·	livor abbiicanie
CAO-TI/IATA-DGR)	
1. UN number	
UN number	1950
2. UN proper shipping name	
Proper shipping name	aerosols, non-flammable
3. Transport hazard class(es)	
Class	2.2
4. Packing group	
Packing group	
ll abole	2.2
Labels	
5. Environmental hazards	
5. Environmental hazards	no
5. Environmental hazards Environmentally hazardous substance mark 6. Special precautions for user	
5. Environmental hazards Environmentally hazardous substance mark 6. Special precautions for user Special provisions	A145
5. Environmental hazards Environmentally hazardous substance mark 6. Special precautions for user	

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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

No data available

National legislation The Netherlands

NOVAIR

Waterbezwaarlijkheid B (4); Algemene Beoordelingsmethodiek (ABM)

National legislation France

NOVAIR

No data available

National legislation Germany

NOVAIR

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

National legislation United Kingdom

NOVAIR

No data available

Other relevant data

NOVAIR

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 %

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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