

# SAFETY DATA SHEET

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

## NOVAFLAME REFILL BOTTLE

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

#### 1.1. Product identifier

Product name : NOVAFLAME REFILL BOTTLE  
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

Fuel

##### 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 1	H222: Extremely flammable aerosol.
Aerosol	category 1	H229: Pressurised container: May burst if heated.

#### 2.2. Label elements



**Signal word** Danger

**H-statements**  
H222 Extremely flammable aerosol.  
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.  
P211 Do not spray on an open flame or other ignition source.  
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

Gas/vapour spreads at floor level: ignition hazard  
Odour threshold is well above one of the exposure limits

# NOVAFLAME REFILL BOTTLE

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name REACH Registration No	CAS No EC No	Conc. (C)	Classification according to CLP	Note	Remark	M-factors and ATE
butane 01-2119474691-32	106-97-8 203-448-7	75% <C<100%	Flam. Gas 1A; H220 Press. Gas - Liquefied gas; H280	(1)(2)(10)(21)	Constituent	
propane 01-2119486944-21	74-98-6 200-827-9	2.5% <C<10%	Flam. Gas 1A; H220 Press. Gas - Liquefied gas; H280	(1)(2)(10)	Propellant	

- (1) For H- and EUH-statements in full: see section 16  
(2) Substance with a Community workplace exposure limit  
(10) Subject to restrictions of Annex XVII of Regulation (EC) No. 1907/2006  
(21) 1,3-butadiene <0.1%

## 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:

Not applicable.

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

#### 4.2.1 Acute symptoms

##### After inhalation:

EXPOSURE TO HIGH CONCENTRATIONS: Headache. Vomiting. Nausea. Feeling of weakness. Rapid respiration. Accelerated heart action. Central nervous system depression. Coordination disorders. Emotional instability. Respiratory difficulties. Disturbances of consciousness. Cramps/uncontrolled muscular contractions.

##### After skin contact:

No effects known.

##### After eye contact:

No effects known.

##### After ingestion:

No effects known.

#### 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

Upon combustion: CO and CO2 are formed. 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: extinguish/cool from behind cover. Do not move the load if exposed to heat. After cooling: persistent risk of physical explosion.

#### 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).

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## SECTION 6: Accidental release measures

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

Stop engines and no smoking. No naked flames or sparks. Spark- and explosionproof appliances and lighting equipment.

#### 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

Contain released product. Dam up the liquid spill.

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

Take up liquid spill into absorbent material. Scoop absorbed substance into closing containers. Carefully collect the spill/leftovers. Clean contaminated surfaces with an excess of water. Take collected spill to manufacturer/competent authority. 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

Use spark-/explosionproof appliances and lighting system. Take precautions against electrostatic charges. Keep away from naked flames/heat. Keep away from ignition sources/sparks. Gas/vapour heavier than air at 20°C. Observe normal hygiene standards.

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

#### 7.2.1 Safe storage requirements:

Storage temperature: < 50 °C. Store in a cool area. Keep container in a well-ventilated place. Keep out of direct sunlight. Fireproof storeroom. Meet the legal requirements.

#### 7.2.2 Keep away from:

Heat sources, ignition sources, combustible materials, oxidizing agents, (strong) acids.

#### 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.

#### Belgium

Butane, tous isomères: n-butane	Short time value	980 ppm
	Short time value	2370 mg/m <sup>3</sup>
Hydrocarbures aliphatiques sous forme gazeuse: (Alcanes C1-C3)	Time-weighted average exposure limit 8 h	1000 ppm

#### France

n-Butane	Time-weighted average exposure limit 8 h (VL: Valeur non réglementaire indicative)	800 ppm
	Time-weighted average exposure limit 8 h (VL: Valeur non réglementaire indicative)	1900 mg/m <sup>3</sup>

#### Germany

Butan	Time-weighted average exposure limit 8 h (TRGS 900)	1000 ppm
	Time-weighted average exposure limit 8 h (TRGS 900)	2400 mg/m <sup>3</sup>
Propan	Time-weighted average exposure limit 8 h (TRGS 900)	1000 ppm
	Time-weighted average exposure limit 8 h (TRGS 900)	1800 mg/m <sup>3</sup>

#### Austria

Butan (beide Isomeren): n-Butan (R 600) Isobutan (R 600a)	Tagesmittelwert (MAK)	800 ppm
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Butan (beide Isomeren): n-Butan (R 600) Isobutan (R 600a)	Tagesmittelwert (MAK)	1900 mg/m <sup>3</sup>
	Kurzzeitwert 60(Mow) 3x (MAK)	1600 ppm
	Kurzzeitwert 60(Mow) 3x (MAK)	3800 mg/m <sup>3</sup>
Propan (R 290)	Tagesmittelwert (MAK)	1000 ppm
	Tagesmittelwert (MAK)	1800 mg/m <sup>3</sup>
	Kurzzeitwert 60(Mow) 3x (MAK)	2000 ppm
	Kurzzeitwert 60(Mow) 3x (MAK)	3600 mg/m <sup>3</sup>

## UK

Butane	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	600 ppm
	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	1450 mg/m <sup>3</sup>
	Short time value (Workplace exposure limit (EH40/2005))	750 ppm
	Short time value (Workplace exposure limit (EH40/2005))	1810 mg/m <sup>3</sup>

## USA (TLV-ACGIH)

Butane, isomers	Short time value (TLV - Adopted Value)	1000 ppm
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### b) National biological limit values

If limit values are applicable and available these will be listed below.

#### 8.1.2 Sampling methods

Product name	Test	Number
n-Butane	OSHA	2010
Propane	OSHA	2077

#### 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

Use spark-/explosionproof appliances and lighting system. Take precautions against electrostatic charges. Keep away from naked flames/heat. Keep away from ignition sources/sparks. Measure the concentration in the air regularly.

### 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 AX 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		> 0.5 mm		Good resistance

#### c) Eye protection:

Safety glasses (EN 166).

#### 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	Mild odour
Odour threshold	No data available in the literature
Colour	Colourless
Particle size	Not applicable (aerosol)
Explosion limits	1.5 - 8.5 vol %
Flammability	Extremely flammable aerosol.
Log Kow	Not applicable (mixture)
Dynamic viscosity	Not applicable (aerosol)
Kinematic viscosity	Not applicable (aerosol)
Melting point	No data available in the literature

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Boiling point	Not applicable (aerosol)
Relative vapour density	Not applicable (aerosol)
Vapour pressure	2100 hPa ; 20 °C
Solubility	Water ; 0.0061 g/100 ml
Relative density	Not applicable (aerosol)
Absolute density	Not applicable (aerosol)
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

May be ignited by sparks. Gas/vapour spreads at floor level: ignition 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

Use spark-/explosionproof appliances and lighting system. Take precautions against electrostatic charges. Keep away from naked flames/heat. Keep away from ignition sources/sparks.

### 10.5. Incompatible materials

Combustible materials, oxidizing agents, (strong) acids.

### 10.6. Hazardous decomposition products

Upon combustion: CO and CO<sub>2</sub> are formed.

## 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

##### NOVAFLAME REFILL BOTTLE

No (test)data on the mixture available

Judgement is based on the relevant ingredients

##### butane

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Dermal						Data waiving	

##### propane

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Inhalation (gases)	LC50		> 800000 ppm	15 minutes	Rat (male / female)	Experimental value	

As the substance is a gas, inhalation is the most likely route of exposure

#### Conclusion

Not classified for acute toxicity

#### Corrosion/irritation

##### NOVAFLAME REFILL BOTTLE

No (test)data on the mixture available

Judgement is based on the relevant ingredients

The liquid form can cause frostbites, typical for all liquefied gases

#### Conclusion

Not classified as irritating to the skin

Not classified as irritating to the eyes

Not classified as irritating to the respiratory system

#### Respiratory or skin sensitisation

##### NOVAFLAME REFILL BOTTLE

No (test)data on the mixture available

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# NOVAFLAME REFILL BOTTLE

Judgement is based on the relevant ingredients

## Conclusion

Not classified as sensitizing for skin  
Not classified as sensitizing for inhalation

## Specific target organ toxicity

### NOVAFLAME REFILL BOTTLE

No (test)data on the mixture available

Judgement is based on the relevant ingredients

#### butane

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Inhalation (gases)	NOAEC systemic effects	OECD 422	21.39 mg/l air		No adverse systemic effects	6 weeks (6h / day, 7 days / week)	Rat (male / female)	Experimental value

#### propane

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Inhalation	NOAEC	OECD 422	4000 ppm	General	No effect	6 weeks (6h / day, 7 days / week)	Rat (male / female)	Experimental value

As the substance is a gas, inhalation is the most likely route of exposure

## Conclusion

Not classified for subchronic toxicity

## Mutagenicity (in vitro)

### NOVAFLAME REFILL BOTTLE

No (test)data on the mixture available

Judgement is based on the relevant ingredients

#### butane

Result	Method	Test substrate	Effect	Value determination	Remark
Negative with metabolic activation, negative without metabolic activation	OECD 471	Bacteria (S.typhimurium)	No effect	Experimental value	

#### propane

Result	Method	Test substrate	Effect	Value determination	Remark
Negative with metabolic activation, negative without metabolic activation	OECD 471	Bacteria (S.typhimurium)	No effect	Experimental value	
Negative with metabolic activation, negative without metabolic activation	OECD 473	Human lymphocytes	No effect	Experimental value	

## Mutagenicity (in vivo)

### NOVAFLAME REFILL BOTTLE

No (test)data on the mixture available

Judgement is based on the relevant ingredients

#### butane

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative (Oral)	Equivalent to OECD 477	3 day(s)	Drosophila melanogaster		Experimental value

#### propane

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative (Inhalation (gases))	OECD 474	13 weeks (6h / day, 5 days / week)	Rat (male / female)		Read-across

## Conclusion

Not classified for mutagenic or genotoxic toxicity

## Carcinogenicity

### NOVAFLAME REFILL BOTTLE

No (test)data on the mixture available

Judgement is based on the relevant ingredients

#### butane

Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Unknown								Data waiving

## Conclusion

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# NOVAFLAME REFILL BOTTLE

Not classified for carcinogenicity

## Reproductive toxicity

### NOVAFLAME REFILL BOTTLE

No (test) data on the mixture available

Judgement is based on the relevant ingredients

#### butane

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity (Inhalation)	NOAEC	OECD 422	9000 ppm	6 weeks (6h / day, 7 days / week)	Rat (male / female)	No effect		Experimental value
Maternal toxicity (Inhalation)	NOAEC	OECD 422	9000 ppm	6 weeks (6h / day, 7 days / week)	Rat	No effect		Experimental value
Effects on fertility (Inhalation)	NOAEC	OECD 422	9000 ppm	6 weeks (6h / day, 7 days / week)	Rat (male / female)	No effect		Experimental value

#### propane

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity	NOAEC	OECD 422	9000 ppm	6 weeks (6h / day, 7 days / week)	Rat (male / female)	No effect		Read-across
	NOAEC	OECD 422	21394 mg/m <sup>3</sup> air	6 weeks (6h / day, 7 days / week)	Rat (male / female)	No effect		Read-across
Effects on fertility (Inhalation (gases))	NOAEC	OECD 422	12000 ppm	6 weeks (6h / day, 7 days / week)	Rat (male / female)	No effect		Read-across

### Conclusion

Not classified for reprotoxic or developmental toxicity

## Toxicity other effects

### NOVAFLAME REFILL BOTTLE

No (test) data on the mixture available

## Chronic effects from short and long-term exposure

### NOVAFLAME REFILL BOTTLE

No effects known.

## 11.2. Information on other hazards

No evidence of endocrine disrupting properties

## SECTION 12: Ecological information

### 12.1. Toxicity

#### NOVAFLAME REFILL BOTTLE

No (test) data on the mixture available

#### butane

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	ECOSAR	24.11 mg/l	96 h	Pisces		Fresh water	QSAR
Acute toxicity crustacea	LC50	ECOSAR v1.00	14.22 mg/l	48 h	Daphnia sp.		Fresh water	QSAR
Toxicity algae and other aquatic plants	EC50	ECOSAR v1.00	7.71 mg/l	96 h	Algae		Fresh water	QSAR

#### propane

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50		49.9 mg/l	96 h	Pisces		Fresh water	QSAR; Estimated value
Acute toxicity crustacea	LC50	ECOSAR v1.00	27.14 mg/l	48 h	Daphnia sp.		Fresh water	QSAR
Toxicity algae and other aquatic plants	EC50	ECOSAR v1.00	11.89 mg/l	96 h	Algae		Fresh water	QSAR

### Conclusion

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

## 12.2. Persistence and degradability

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butane

## Half-life soil (t1/2 soil)

Method	Value	Primary degradation/mineralisation	Value determination
			Not applicable (gas)

propane

## Biodegradation water

Method	Value	Duration	Value determination
	100 %	385.5 h	Experimental value

## Half-life soil (t1/2 soil)

Method	Value	Primary degradation/mineralisation	Value determination
			Not applicable (gas)

## Conclusion

### Water

Contains readily biodegradable component(s)

## 12.3. Bioaccumulative potential

### NOVAFLAME REFILL BOTTLE

#### Log Kow

Method	Remark	Value	Temperature	Value determination
	Not applicable (mixture)			

butane

#### Log Kow

Method	Remark	Value	Temperature	Value determination
		2.8	20 °C	Experimental value

propane

#### Log Kow

Method	Remark	Value	Temperature	Value determination
		1.09 - 2.8	20 °C	Experimental value

## Conclusion

Does not contain bioaccumulative component(s)

## 12.4. Mobility in soil

Not applicable (gas)

## 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

### NOVAFLAME REFILL BOTTLE

#### Greenhouse gases

None of the known components is included in 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

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).

07 01 04\* (wastes from the manufacture, formulation, supply and use (MFSU) of basic organic chemicals: other organic solvents, washing liquids and mother liquors). Depending on branch of industry and production process, also other waste codes may be applicable.

#### 13.1.2 Disposal methods

Remove waste in accordance with local and/or national regulations. Specific treatment. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Should not be landfilled with household waste. Do not discharge into drains or the environment. Dispose of at authorized waste collection point.

#### 13.1.3 Packaging/Container

##### European Union

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# NOVAFLAME REFILL BOTTLE

Waste material code packaging (Directive 2008/98/EC).  
15 01 10\* (packaging containing residues of or contaminated by dangerous substances).  
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	5F
14.4. Packing group	Packing group	
	Labels	2.1
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	23
	Class	2
	Classification code	5F
14.4. Packing group	Packing group	
	Labels	2.1
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	5F
14.4. Packing group	Packing group	
	Labels	2.1
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)

# NOVAFLAME REFILL BOTTLE

## 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	2.1
14.4. Packing group	
Packing group	
Labels	2.1
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, flammable
14.3. Transport hazard class(es)	
Class	2.1
14.4. Packing group	
Packing group	
Labels	2.1
14.5. Environmental hazards	
Environmentally hazardous substance mark	no
14.6. Special precautions for user	
Special provisions	A145
Special provisions	A167
Special provisions	A802
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 %	
573.7 g/l	

Directive 2012/18/EU (Seveso III)

Threshold values under normal circumstances

Substance or category	Low tier (tonnes)	Top tier (tonnes)	Group	For this substance or mixture the summation rule has to be applied for:
P3b FLAMMABLE AEROSOLS	5000 (net)	50000 (net)	None	Flammability

REACH Annex XVII - Restriction

Contains 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.

	Designation of the substance, of the group of substances or of the mixture	Conditions of restriction
· butane · propane	Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact	1. Shall not be used, as substance or as mixtures in aerosol dispensers where these aerosol dispensers are intended for supply to the general public for entertainment and decorative purposes such as the following: — metallic glitter intended mainly for decoration,

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with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to that Regulation or not.

— artificial snow and frost,  
 — “whoopee” cushions,  
 — silly string aerosols,  
 — imitation excrement,  
 — horns for parties,  
 — decorative flakes and foams,  
 — artificial cobwebs,  
 — stink bombs.

2. Without prejudice to the application of other Community provisions on the classification, packaging and labelling of substances, suppliers shall ensure before the placing on the market that the packaging of aerosol dispensers referred to above is marked visibly, legibly and indelibly with:

“For professional users only”.

3. By way of derogation, paragraphs 1 and 2 shall not apply to the aerosol dispensers referred to Article 8 (1a) of Council Directive 75/324/EEC.

4. The aerosol dispensers referred to in paragraphs 1 and 2 shall not be placed on the market unless they conform to the requirements indicated.

## National legislation Belgium

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No data available

## National legislation The Netherlands

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Waterbezwaarlijkheid	Z (2); Algemene Beoordelingsmethodiek (ABM)
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## National legislation France

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No data available

## National legislation Germany

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Lagerklasse (TRGS510)	2B: Aerosolpackungen und Feuerzeuge
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WGK	nwg; Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen (AwSV) - 18. April 2017
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butane

TA-Luft	5.2.5
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propane

TA-Luft	5.2.5
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## National legislation Austria

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No data available

## National legislation United Kingdom

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No data available

butane

Carcinogen	Butane; Carc
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## Other relevant data

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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:

H220 Extremely flammable gas.  
 H222 Extremely flammable aerosol.  
 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

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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.

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