

N. F. – NON FLAMMABLE CONTACT CLEANER

Creation date 22. May 2019
Revision date Version 2.0

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

- 1.1. Product identifier**
Substance / mixture N. F. – NON FLAMMABLE CONTACT CLEANER
mixture
Number R 91020
- 1.2. Relevant identified uses of the substance or mixture and uses advised against**
Mixture's intended use Degreasing agent.
Mixture uses advised against For professional use only.
- 1.3. Details of the supplier of the safety data sheet**
Supplier
Name or trade name RETECH, s.r.o.
Address Vackova 1541/4, Praha 5 - Stodůlky, 155 00
Czech Republic
Identification number (CRN) 25018205
Phone +420327596428
E-mail info@retech.cz
Web address www.retech.com
- Competent person responsible for the safety data sheet**
Name RETECH, s.r.o.
E-mail info@retech.cz
- 1.4. Emergency telephone number**
RETECH, Suchdol 212, 285 02 Suchdol u Kutné Hory, Czech Republic; Telephone number: +420 327 596 128 (7.30-16.00 hour)
Poisoning information centre, Na Bojišti 1, Praha, Czech Republic, Tel.: non-stop +420 224 919 293 or +420 224 915 402, Information on health risks only - acute poisoning of humans and animals.

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture**
Classification of the mixture in accordance with Regulation (EC) No 1272/2008

The mixture is classified as dangerous.

Aerosol 3, H229
Skin Irrit. 2, H315

Full text of all classifications and hazard statements is given in the section 16.

Most serious adverse physico-chemical effects

Pressurised container: May burst if heated.

Most serious adverse effects on human health and the environment

Causes skin irritation.

2.2. Label elements
Hazard pictogram**Signal word**

Warning

Hazard statements

H229 Pressurised container: May burst if heated.
H315 Causes skin irritation.

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Precautionary 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.
- P264 Wash hands and exposed parts of the body thoroughly after handling.
- P280 Wear protective gloves.
- P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C.

Supplemental information

56,25 % by mass of the contents are flammable.

2.3. Other hazards

Mixture does not contain any substance meet the criteria for PBT or vPvB in accordance with Annex XIII of Regulation (EC) No. 1907/2006 (REACH) as amended.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Mixture of substances and additives specified below.

Mixture contains these hazardous substances and substances with the highest permissible concentration in the working environment

Identification numbers	Substance name	Content in % weight	Classification according to Regulation (EC) No 1272/2008	Note.
CAS: 109-65-9 EC: 203-691-9 Registration number: 01-2120762231-64	1-Bromobutane	55-<60	Flam. Liq. 2, H225 Skin Irrit. 2, H315	
CAS: 29118-24-9 EC: 471-480-0 Registration number: 01-0000019758-54	trans-1,3,3,3-Tetrafluorpropene	25-<29	Press. Gas, H280	
Index: 602-003-00-8 CAS: 74-95-3 EC: 200-824-2 Registration number: 01-2120766626-43	Dibromomethane	17,5-<20	Acute Tox. 4, H332 Aquatic Chronic 3, H412	

Full text of all classifications and hazard statements is given in the section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

There are not any particular first aid measures required. If any health problems are manifested or if in doubt, inform a doctor and show him information from this safety data sheet.

If inhaled

Terminate the exposure immediately; move the affected person to fresh air. In the event of issues, find medical help.

If on skin

Remove contaminated clothes. Wash the affected area with plenty of water, lukewarm if possible. In the event of issues, find medical help. Wash contaminated clothing before reuse.

If in eyes

Rinse eyes immediately with a flow of running water, open the eyelids (also using force if needed); remove contact lenses immediately if worn by the affected person. In the event of issues, find medical help.

If swallowed

Do not induce vomiting unless directed to do so by medical personnel. Do not provide anything by mouth if the person is unconscious or if having cramps. Provide medical treatment.

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4.2. Most important symptoms and effects, both acute and delayed**If inhaled**

not available

If on skin

Causes skin irritation.

If in eyes

When intruding eyes, it can evoke irritation.

If swallowed

not available

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

not available

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**

Carbon dioxide, foam, powder. Water mist.

Unsuitable extinguishing media

not available

5.2. Special hazards arising from the substance or mixture

Container: May burst if heated. Do not breathe smoke.

5.3. Advice for firefighters

Use a self-contained breathing apparatus and full-body protective clothing. Closed containers with the product near the fire should be cooled with water.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Stop leak if safe to do so. Pressurised container: May burst if heated. Use personal protective equipment for work. Prevent contact with skin and eyes.

6.2. Environmental precautions

Prevent contamination of the soil and entering surface or ground water.

6.3. Methods and material for containment and cleaning up

Spilled product should be covered with suitable (non-flammable) absorbing material (sand, diatomaceous earth, earth and other suitable absorption materials); to be contained in well closed containers and removed as per the Section 13. Provide sufficient ventilation.

6.4. Reference to other sections

See the Section 7, 8 and 13.

SECTION 7: Handling and storage**7.1. Precautions for safe handling**

The product should be used only in the areas where it is not in contact with open fire and other ignition sources. Take precautionary measures against static discharge. Protect against direct sunlight. Do not pierce or burn, even after use. Do not eat, drink or smoke when using this product. Do not inhale aerosols.

7.2. Conditions for safe storage, including any incompatibilities

Store in a well-ventilated place. Keep away from sources of heating, ignition and direct sunlight.

7.3. Specific end use(s)

not available

SECTION 8: Exposure controls/personal protection**8.1. Control parameters**

none

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DNEL

trans-1,3,3,3-Tetrafluorpropene

Workers / consumers	Route of exposure	Value	Effect	Determining method
Consumers	Inhalation	830 mg/m ³	Systemic chronic effects	
Workers	Inhalation	3902 mg/m ³	Systemic chronic effects	

PNEC

trans-1,3,3,3-Tetrafluorpropene

Route of exposure	Value	Determining method
Freshwater environment	0.1 mg/l	
Water (occasional leak)	1 mg/l	

8.2. Exposure controls

Follow the usual measures intended for health protection at work and especially for good ventilation. Take off contaminated clothing. Contaminated skin should be washed thoroughly. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

Tightly sealed goggles.

Skin protection

Hand protection: It is not needed.

Other protection: protective workwear. Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344).

Respiratory protection

Use a mask with filter when the exposition limits of the substances are exceeded or at the place with insufficient ventilation. Filter of type B in combination with filter of type P. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. The protection provided by masks is in any case limited.

Thermal hazard

Not available.

Environmental exposure controls

Observe usual measures for protection of the environment, see Section 6.2.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	aerosol
Physical state	liquid at 20°C
color	colourless
Odour	characteristic
Odour threshold	data not available
pH	data not available
Melting point/freezing point	data not available
Initial boiling point and boiling range	data not available
Flash point	data not available
Evaporation rate	data not available
Flammability (solid, gas)	data not available
Upper/lower flammability or explosive limits	
flammability limits	data not available
explosive limits	data not available
Vapour pressure	data not available
Vapour density	data not available
Relative density	1.36
Solubility(ies)	

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solubility in water	insoluble
solubility in fats	data not available
Partition coefficient: n-octanol/water	data not available
Auto-ignition temperature	data not available
Decomposition temperature	data not available
Viscosity	data not available
Explosive properties	data not available
Oxidising properties	data not available
data not available	

9.2. Other information

Density	data not available
ignition temperature	data not available
content of organic solvents (VOC)	25 %
Max. VOC content in the product in its ready to use condition	340 g/l

SECTION 10: Stability and reactivity

10.1. Reactivity

When used in the standard way, there is not any dangerous reaction with other substances.

10.2. Chemical stability

The product is stable under normal conditions.

10.3. Possibility of hazardous reactions

Unknown.

10.4. Conditions to avoid

Protect against overheating.

10.5. Incompatible materials

Protect against strong acids and bases. Protect against strong oxidizing agents and reducing agents. Heat.

10.6. Hazardous decomposition products

not available

SECTION 11: Toxicological information

11.1. Information on toxicological effects

No toxicological data is available for the mixture.

Acute toxicity

Based on available data the classification criteria are not met.

1-Bromobutane

Route of exposure	Parameter	Value	Time of exposure	Species	Sex
Oral	LD ₅₀	2761 mg/kg		Rat	
Dermal	LD ₅₀	>2000 mg/kg		Rabbit	
Inhalation	LC ₅₀	25.4 mg/l	4 hour	Rat	

Dibromomethane

Route of exposure	Parameter	Value	Time of exposure	Species	Sex
Oral	LD ₅₀	108 mg/kg		Rat	
Dermal	LD ₅₀	>4000 mg/kg		Rat	

Skin corrosion/irritation

Causes skin irritation.

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Serious eye damage/irritation

Based on available data the classification criteria are not met.

Respiratory or skin sensitisation

Based on available data the classification criteria are not met.

Germ cell mutagenicity

Based on available data the classification criteria are not met.

Carcinogenicity

Based on available data the classification criteria are not met.

Reproductive toxicity

Based on available data the classification criteria are not met.

Toxicity for specific target organ - single exposure

Based on available data the classification criteria are not met.

Toxicity for specific target organ - repeated exposure

Based on available data the classification criteria are not met.

Aspiration hazard

Based on available data the classification criteria are not met.

More information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.

SECTION 12: Ecological information

12.1. Toxicity

Acute toxicity

Data for the mixture are not available.

1-Bromobutane

Parameter	Value	Time of exposure	Species	Environment
LC ₅₀	24.3 mg/l	96 hour	Fishes	
EC ₅₀	99.3 mg/l	72 hour	Algae	

trans-1,3,3,3-Tetrafluorpropene

Parameter	Value	Time of exposure	Species	Environment
EC ₅₀	>160 mg/l	48 hour	Daphnia (Daphnia magna)	
EC 10	>170 mg/l	72 hour	Algae and other aquatic plants	

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Chronic toxicity

trans-1,3,3,3-Tetrafluorpropene

Parameter	Value	Time of exposure	Species	Environment
NOEC	>170 mg/l		Algae and other aquatic plants (Pseudokirchneriella subcapitata)	

More information

Prevent other leakage. Avoid release to the environment. In the event of substantial pollution, contact respective authorities.

12.2. Persistence and degradability

Biodegradability

1-Bromobutane

Parameter	Value	Time of exposure	Environment	Result
				Hardly biodegradable

Dibromomethane

Parameter	Value	Time of exposure	Environment	Result
				Easily biodegradable

trans-1,3,3,3-Tetrafluorpropene

Parameter	Value	Time of exposure	Environment	Result
	373 mg/l			Hardly biodegradable

Not available.

12.3. Bioaccumulative potential

trans-1,3,3,3-Tetrafluorpropene

Parameter	Value	Time of exposure	Species	Environment	Surrounding temperature [°C]
Log Kow	1.6 mg/l				

Not available.

12.4. Mobility in soil

Not available.

12.5. Results of PBT and vPvB assessment

Product does not contain any substance meeting the criteria for PBT or vPvB in accordance with the Annex XIII of Regulation (EC) No 1907/2006 (REACH) as amended.

12.6. Other adverse effects

Not available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Proceed in accordance with valid regulations on waste disposal. Any unused product and contaminated packaging should be put in labelled containers for waste collection and submitted for disposal to a person authorised for waste removal (a specialized company) that is entitled for such activity. Do not empty unused product in drainage systems. The product must not be disposed of with municipal waste.

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Waste management legislation

Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste, as amended. Decision 2000/532/EC establishing a list of wastes, as amended.

Waste type code

16 03 05 organic wastes containing dangerous substances

Packaging waste type code

15 01 11 metallic packaging containing a dangerous solid porous matrix (for example asbestos), including empty pressure containers

SECTION 14: Transport information

14.1. UN number

UN 1950

14.2. UN proper shipping name

AEROSOLS

14.3. Transport hazard class(es)

2 Gases

14.4. Packing group

not available

14.5. Environmental hazards

No

14.6. Special precautions for user

Reference in the Sections 4 to 8.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

not available

Additional information

Special instructions: A98, A145, A167, A802

Hazard identification No.

UN number

Safety signs

	(Kemler Code)
1950	
2.2	



Road transport - ADR

Limited quantities	1 L
Tunnel restriction code	(E)

Air transport - ICAO/IATA

Packaging instructions passenger	203
Cargo packaging instructions	203

Marine transport - IMDG

EmS (emergency plan)	F-D, S-U
Marine Pollutant	No

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SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

Regulation (EC) No. 1907/2006 of the European Parliament and of the Council of 18th December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing the European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No. 793/93 and Commission Regulation (EC) No. 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, as amended. Regulation (EC) No. 1272/2008 of the European Parliament and of the Council of 16th December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No. 1907/2006, as amended.

15.2. Chemical safety assessment

not available

SECTION 16: Other information**A list of standard risk phrases used in the safety data sheet**

H225	Highly flammable liquid and vapour.
H229	Pressurised container: May burst if heated.
H280	Contains gas under pressure; may explode if heated.
H315	Causes skin irritation.
H332	Harmful if inhaled.
H412	Harmful to aquatic life with long lasting effects.

Guidelines for safe handling used in the safety data sheet

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.
P264	Wash hands and exposed parts of the body thoroughly after handling.
P280	Wear protective gloves.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C.

Other important information about human health protection

The product must not be - unless specifically approved by the manufacturer/importer - used for purposes other than as per the Section 1. The user is responsible for adherence to all related health protection regulations.

Key to abbreviations and acronyms used in the safety data sheet

ADR	European agreement concerning the international carriage of dangerous goods by road
BCF	Bioconcentration Factor
CAS	Chemical Abstracts Service
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substance and mixtures
DNEL	Derived no-effect level
EC	Identification code for each substance listed in EINECS
EC ₅₀	Concentration of a substance when it is affected 50% of the population
EINECS	European Inventory of Existing Commercial Chemical Substances
EmS	Emergency plan
EU	European Union
IATA	International Air Transport Association
IBC	International Code For The Construction And Equipment of Ships Carrying Dangerous Chemicals
IC ₅₀	Concentration causing 50% blockade
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
INCI	International Nomenclature of Cosmetic Ingredients
ISO	International Organization for Standardization
IUPAC	International Union of Pure and Applied Chemistry

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LC ₅₀	Lethal concentration of a substance in which it can be expected death of 50% of the population
LD ₅₀	Lethal dose of a substance in which it can be expected death of 50% of the population
LOAEC	Lowest observed adverse effect concentration
LOAEL	Lowest observed adverse effect level
log K _{ow}	Octanol-water partition coefficient
MARPOL	International Convention for the Prevention of Pollution From Ships
NOAEC	No observed adverse effect concentration
NOAEL	No observed adverse effect level
NOEC	No observed effect concentration
NOEL	No observed effect level
OEL	Occupational Exposure Limits
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted no-effect concentration
ppm	Parts per million
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Agreement on the transport of dangerous goods by rail
UN	Four-figure identification number of the substance or article taken from the UN Model Regulations
UVCB	Substances of unknown or variable composition, complex reaction products or biological materials
VOC	Volatile organic compounds
vPvB	Very Persistent and very Bioaccumulative

Acute Tox.	Acute toxicity
Aerosol	Aerosol
Aquatic Chronic	Hazardous to the aquatic environment
Flam. Liq.	Flammable liquid
Press. Gas	Gases under pressure
Skin Irrit.	Skin irritation

Training guidelines

Inform the personnel about the recommended ways of use, mandatory protective equipment, first aid and prohibited ways of handling the product.

Recommended restrictions of use

not available

Information about data sources used to compile the Safety Data Sheet

REGULATION (EC) No. 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL (REACH) as amended. REGULATION (EC) No. 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL as amended. Data from the manufacturer of the substance / mixture, if available - information from registration dossiers.

The changes (which information has been added, deleted or modified)

2, 3, 13, 15, 16.

Statement

The safety data sheet provides information aimed at ensuring safety and health protection at work and environmental protection. The provided information corresponds to the current status of knowledge and experience and complies with valid legal regulations. The information should not be understood as guaranteeing the suitability and usability of the product for a particular application.