

Productname : N.F. Precision Cleaner      Creationdate : 29.06.17 Version : 4.0  
 Ref.Nr.: BDS000669\_3\_20170629 (EN)      Replaces: BDS000669\_20170104

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

### 1.1. Product identifier

N.F. Precision Cleaner  
 Aerosol

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

Cleaners - Precision

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

CRC Industries Europe bvba  
 Touwslagerstraat 1  
 9240 Zele  
 Belgium  
 Tel.: +32(0)52/45.60.11  
 Fax.: +32(0)52/45.00.34  
 E-mail : hse@crcind.com

Subsidiaries		Tel	Fax
CRC Industries Finland Oy	Laurinkatu 57 A 23 B, 08100 Lohja	+358/(19)32.921	
CRC Industries France	6, avenue du marais, C.S. 90028, 95102 Argenteuil Cedex	01.34.11.20.00	01.34.11.09.96
CRC Industries Deutschland GmbH	Südring 9, D-76473 Iffezheim	(07229) 303 0	(07229)30 32 66
CRC INDUSTRIES IBERIA S.L.U.	GREMIO DEL CUERO-PARC.96, POLIGONO INDUSTRI. DE HONTORIA, 40195 SEGOVIA	0034/921.427.546	0034/921.436.270
CRC Industries Sweden	Laxfiskevägen 16, 433 38 Partille	0046/31 706 84 80	0046/31 27 39 91

### 1.4. Emergency telephone number

CRC Industries Europe, Belgium: Tel.: +32(0)52/45.60.11 (office hours)

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### Classification according to Regulation (EC) No 1272/2008

**Physical:** Aerosol, category 3  
 Pressurised container: May burst if heated.

Classification is based on test data.

**Health:** Not classified



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**Replaces:** BDS000669\_20170104

Classification based on calculation method.

**Environment:** Hazardous to the aquatic environment, chronic category 3  
 Harmful to aquatic life with long lasting effects.

Classification based on calculation method.

## 2.2. Label elements

### Labelling according to Regulation (EC) No 1272/2008

**Signal word:** Warning

**Hazard statement(s):** H229 : Pressurised container: May burst if heated.  
 H412 : Harmful to aquatic life with long lasting effects.

**Precautionary statement(s):** P102 : Keep out of reach of children.  
 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.  
 P410/412 : Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.  
 P501-2 : Dispose of contents/container to an authorised waste collection point.

**Supplemental Hazard information:** 6 % by mass of the contents are flammable.  
 Contains fluorinated greenhouse gases:  
 HFC-134a  
 HFC-43-10 mee  
 quantity expressed in weight and CO2 equivalent depend on actual volume of the packaging: see label  
 GWP mixture: see section 12.6

**Regulation (EC) No 648/2004 on detergents:** aliphatic hydrocarbons < 5 %

## 2.3. Other hazards

No information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable.

### 3.2. Mixtures

Hazardous ingredient	Registration number	CAS-nr.	EC-nr	w/w %	Hazard Class and Category	Hazard statement	Notes
tetrafluoroethane	01-2119459374-33	811-97-2	212-377-0	30-60	Press. Gas	H280	B
Reaction mass of (3R,4R)-1.1.1.2.2.3.4.5.5.5-decafluoropentane and	01-2119446695-	138495-42-8	420-640-8	30-60	Aquatic Chronic 3	H412	



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(3S,4S)-1,1,1,2,2,3,4,5,5,5-decafluoropentane	28						
methylal	01-2119664781-31	109-87-5	203-714-2	1-5	Flam. Liq. 2	H225	B
hydrocarbons,C6,isoalkanes,< 5% n-hexane	01-2119484651-34	-	(931-254-9)	1-5	Flam. Liq. 2, Skin Irrit. 2, STOT SE 3, Asp. Tox. 1, Aquatic Chronic 2	H225,H315,H336,H304,H411	Q
butan-2-ol	01-2119475146-36	78-92-2	201-158-5	0-1	Flam. Liq. 3, Eye Irrit. 2, STOT SE 3, STOT SE 3	H226,H319,H335,H336	B
Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, < 2% aromatics	01-2119471843-32	-	(927-241-2)	0-1	Flam. Liq. 3, Aquatic Chronic 3, Asp. Tox. 1, STOT SE 3	H226,H412,H304,H336	B,Q

**Explanation notes**

B : substance with national established workplace exposure limit

Q : The CAS-no is only an indicative identifier to be used outside the EU for global inventory entries.

(\* Explanation phrases : see chapter 16)

**SECTION 4: First aid measures****4.1. Description of first aid measures**

<b>Contact with eyes :</b>	If substance has got into eyes, immediately wash out with plenty of water
<b>Contact with skin :</b>	Wash with plenty of soap and water.
<b>Inhalation :</b>	Remove victim to fresh air and keep at rest in a position comfortable for breathing.
<b>Ingestion :</b>	If swallowed accidentally, do not induce vomiting and seek medical advice.

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

<b>Inhalation :</b>	Excessive inhalation of solvent vapours may give rise to nausea, headaches and dizziness
<b>Ingestion :</b>	May cause gastrointestinal disturbances Symptoms : sore throat, abdominal pain, nausea, vomiting
<b>Skin contact :</b>	In case of contact with liquid product frostbite symptoms may occur.
<b>Eye contact :</b>	In case of contact with liquid product frostbite symptoms may occur.

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

<b>General Advice :</b>	In case of accident or if you feel unwell, seek medical advice (show the label where possible) If symptoms persist always call a doctor
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**SECTION 5: Firefighting measures****5.1. Extinguishing media**

water, foam, carbon dioxide or dry agent



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**3 / 10**

**Productname :** N.F. Precision Cleaner  
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**Creationdate :** 29.06.17 Version : 4.0  
**Replaces:** BDS000669\_20170104

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

Aerosols may explode if heated above 50°C  
Forms hazardous decomposition products  
CO,CO2  
HF may be formed under condition of fire

## 5.3. Advice for firefighters

Keep container(s) exposed to fire cool, by spraying with water  
In case of fire, do not breathe fumes

# SECTION 6: Accidental release measures

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

Shut off all ignition sources  
Ensure adequate ventilation  
Wear suitable protective clothing and gloves.

## 6.2. Environmental precautions

Do not allow to enter public sewers and watercourses

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

Absorb spillage in suitable inert material  
Wash spill site with water and detergent

## 6.4. Reference to other sections

For further information see section 8

# SECTION 7: Handling and storage

## 7.1. Precautions for safe handling

Keep away from heat and sources of ignition  
Do not spray on a naked flame or incandescent material.  
Do not pierce or burn aerosols, even after use.  
Do not breathe aerosols or vapours.  
Ensure adequate ventilation  
Avoid contact with skin and eyes.

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

Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use.



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**Creationdate :** 29.06.17 Version : 4.0  
**Replaces:** BDS000669\_20170104

Store in a well-ventilated place.  
Keep out of reach of children.

### 7.3. Specific end use(s)

Cleaners - Precision

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Exposure limits :

No information available

### 8.2. Exposure controls

<b>Control procedures :</b>	Ensure adequate ventilation Keep away from heat and sources of ignition
<b>Personal protection :</b>	Take precautions to avoid contact with skin and eyes when handling the product. It is good practice to wear gloves and to provide adequate ventilation whenever using the product. In all cases handle and use the product in accordance with good industrial hygiene practices.
<b>inhalation :</b>	In case of insufficient ventilation, wear suitable respiratory equipment.
recommended respiratory protection:	Air purifying respirator equipped with organic gas/vapor cartridge (type AX)
<b>hands and skin :</b>	For accidental contact the use of disposable gloves should be sufficient provided they are changed immediately after a splash or spill may occur. If intentional contact is expected reusable gloves should be used with a breakthrough time greater than the total duration of the product use.
Recommended gloves:	(VITON)
<b>eyes :</b>	Wear safety eyewear according to EN 166.
<b>Environmental protection:</b>	Avoid release to the environment. Collect spillage.

## SECTION 9: Physical and chemical properties

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

(for aerosols data for the product without propellant)

<b>Apperance : physical state :</b>	Liquid under pressure.
<b>colour :</b>	Colorless.
<b>odour :</b>	Solvent.
<b>pH :</b>	Not applicable.
<b>Boiling point/range :</b>	Not available.
<b>Flash point :</b>	< 0 °C
<b>Evaporation rate :</b>	Not available.



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**Replaces:** BDS000669\_20170104

**Explosion limits : upper limit :** Not available.  
**lower limit :** Not available.  
**Vapour pressure :** Not available.  
**Relative density :** 1.39 g/cm<sup>3</sup> (@ 20°C).  
**Solubility in water :** Insoluble in water  
**Auto-ignition :** > 200 °C  
**Viscosity :** Not available.

## 9.2. Other information

**VOC = volatile organic compounds** 1220 g/l

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No hazardous reactions known if used for its intended purpose

### 10.2. Chemical stability

Stable

### 10.3. Possibility of hazardous reactions

No hazardous reactions known if used for its intended purpose

### 10.4. Conditions to avoid

Avoid overheating

### 10.5. Incompatible materials

Strong oxidising agent

### 10.6. Hazardous decomposition products

CO,CO<sub>2</sub>  
HF may be formed under condition of fire

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

**acute toxicity:** based on available data the classification criteria are not met  
**skin corrosion/irritation:** based on available data the classification criteria are not met  
**serious eye damage/irritation:** based on available data the classification criteria are not met  
**respiratory or skin** based on available data the classification criteria are not met



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**sensitisation:**

**germ cell mutagenicity:** based on available data the classification criteria are not met  
**carcinogenicity:** based on available data the classification criteria are not met  
**toxicity for reproduction:** based on available data the classification criteria are not met  
**STOT-single exposure:** based on available data the classification criteria are not met  
**STOT repeated exposure:** based on available data the classification criteria are not met  
**aspiration hazard:** based on available data the classification criteria are not met

**Information on likely routes of exposure:**

**Inhalation :** Excessive inhalation of solvent vapours may give rise to nausea, headaches and dizziness  
**Ingestion :** May cause gastrointestinal disturbances  
**Skin contact :** In case of contact with liquid product frostbite symptoms may occur.  
**Eye contact :** In case of contact with liquid product frostbite symptoms may occur.

**Toxicological data :**

Hazardous ingredient	CAS-nr.	method	
methylal	109-87-5	LD50 oral rat	6423 mg/kg
		LD50 derm.rabit	> 5000 mg/kg
butan-2-ol	78-92-2	LD50 oral rat	> 2000 mg/kg
		LD50 derm.rabit	> 2000 mg/kg
tetrafluoroethane	811-97-2	LC50 inhal.rat	567000 ppm
Reaction mass of (3R,4R)-1,1,1,2,2,3,4,5,5,5-decafluoropentane and (3S,4S)-1,1,1,2,2,3,4,5,5,5-decafluoropentane	138495-42-8	LD50 oral rat	> 2000 mg/kg
		LC50 inhal.rat	114 mg/l
		LD50 derm.rabit	> 2000 mg/kg
Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, < 2% aromatics	-	LD50 oral rat	> 5000 mg/kg
		LC50 inhal.rat	> 4951 mg/m3
		LD50 derm.rabit	> 5000 mg/kg
hydrocarbons,C6,isoalkanes,< 5% n-hexane	-	LD50 oral rat	> 5000 mg/kg
		LC50 inhal.rat	> 20 mg/l
		LD50 derm.rabit	> 3000 mg/kg

**SECTION 12: Ecological information****12.1. Toxicity**

Hazardous to the aquatic environment, chronic category 3  
Harmful to aquatic life with long lasting effects.



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**Creationdate :** 29.06.17 Version : 4.0  
**Replaces:** BDS000669\_20170104

**Ecotoxicological data:**

Hazardous ingredient	CAS-nr.	method	
methylal	109-87-5	LC50 fish	> 1000 mg/l
		EC50 daphnia	> 1000 mg/l
butan-2-ol	78-92-2	IC50 algae	2029 mg/l
		LC50 fish	2993 mg/l
		EC50 daphnia	308 mg/l
tetrafluoroethane	811-97-2	LC50 fish	450 mg/l
		EC50 daphnia	980 mg/l
Reaction mass of (3R,4R)-1,1,1,2,2,3,4,5,5,5-decafluoropentane and (3S,4S)-1,1,1,2,2,3,4,5,5,5-decafluoropentane	138495-42-8	LC50 fish	13 mg/l
		EC50 daphnia	11.7 mg/l
Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, < 2% aromatics	-	IC50 algae	> 1000 mg/l
		LC50 fish	< 30 mg/l
		EC50 daphnia	< 50 mg/l
hydrocarbons,C6,isoalkanes,< 5% n-hexane	-	IC50 algae	55 mg/l
		LC50 fish	> 1 mg/l
		EC50 daphnia	3.87 mg/l

**12.2. Persistence and degradability**

No experimental data available

**12.3. Bioaccumulative potential**

No experimental data available

**12.4. Mobility in soil**

Insoluble in water

**12.5. Results of PBT and vPvB assessment**

No information available

**12.6. Other adverse effects**

No experimental data available

GWP (global warming potential): 1437

(calculated in accordance with Annex IV of Regulation (EU) No 517/2014 on fluorinated greenhouse gases)





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Replaces: BDS000669\_20170104

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

**Product :** This material and its container must be disposed of in a safe way.  
Do not discharge into drains or the environment, dispose to an authorised waste collection point.

**Contaminated packaging :** Disposal should be in accordance with local, state or national legislation

## SECTION 14: Transport information

### 14.1. UN number

UN-number : 1950

### 14.2. UN proper shipping name

Proper shipping name: AEROSOLS

### 14.3. Transport hazard class(es)

Class: 2.2  
ADR/RID - Classification code: 5A

### 14.4. Packing group

Packing group: Not applicable.

### 14.5. Environmental hazards

ADR/RID - Environmentally hazardous: No  
IMDG - Marine pollutant: No  
IATA/ICAO - Environmentally hazardous: No

### 14.6. Special precautions for user

ADR/RID - Tunnelcode: (E)  
IMDG - Ems: F-D, S-U  
IATA/ICAO - PAX: 203  
IATA/ICAO - CAO: 203

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

Not applicable.



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**Creationdate :** 29.06.17 Version : 4.0  
**Replaces:** BDS000669\_20170104

## SECTION 15: Regulatory information

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

The Safety Data Sheet is compiled according to the current European requirements.  
Regulation (EC) No 1907/2006 (REACH)  
Regulation (EC) No 1272/2008 (CLP)  
Dir. 2013/10/EU, 2008/47/EC amendment of the aerosol dispenser directive 75/324/EEC.

### 15.2. Chemical safety assessment

No information available

## SECTION 16: Other information

\*Explanation hazard statements: H225 : Highly flammable liquid and vapour.  
H226 : Flammable liquid and vapour.  
H280 : Contains gas under pressure; may explode if heated.  
H304 : May be fatal if swallowed and enters airways.  
H315 : Causes skin irritation.  
H319 : Causes serious eye irritation.  
H335 : May cause respiratory irritation.  
H336 : May cause drowsiness or dizziness.  
H411 : Toxic to aquatic life with long lasting effects.  
H412 : Harmful to aquatic life with long lasting effects.

REVISIONS IN CHAPTRE : 8.2. Exposure controls

acronyms and synonyms: TWA = time weight average  
STEL = short time exposure limit  
VOC = volatile organic compounds  
PBT = persistant bioaccumulative toxic  
vPvB = very persitant very bioaccumulative

This product should be stored, handled and used in accordance with good industrial hygiene practices and in conformity with any legal regulation.

The information contained herewith is based on the present state of our knowledge and is intended to describe our products from the point of view of safety requirements. It does not guarantee any specific properties.

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