

Productname : N.F. PRECISION CLEANER **Creationdate :** 04.01.17 Version : 3.0
Ref.Nr.: BDS000668_3_20170104 (EN) **Replaces:** BDS000668_20130911

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 UK Ltd.
Ambersil House - Wylds Road
Castlefield Industrial Estate
TA6 4DD Bridgwater Somerset
United Kingdom
Tel.: +44 1278 727200
Fax.: +44 1278 425644
E-mail : hse.uk@crcind.com

1.4. Emergency telephone number

(+44)(0)1278 72 7200 (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.
Health:	Not classified
Environment:	Hazardous to the aquatic environment, chronic category 3 Harmful to aquatic life with long lasting effects.

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.



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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

2.3. Other hazards

None

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 (3S,4S)-1,1,1,2,2,3,4,5,5,5-decafluoropentane	01-2119446695-28	138495-42-8	420-640-8	30-60	Aquatic Chronic 3	H412	
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	64742-49-0	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	B,P
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
Explanation notes							
B : substance with national established workplace exposure limit							

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P : not classified as carcinogen, less than 0.1% w/w benzene (Einecs-nr. 200-753-7)

(* Explanation phrases : see chapter 16)

SECTION 4: First aid measures

4.1. Description of first aid measures

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

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

Inhalation :	Excessive inhalation of solvent vapours may give rise to nausea, headaches and dizziness
Ingestion :	May cause gastrointestinal disturbances Symptoms : sore throat, abdominal pain, nausea, vomiting
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.

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

General Advice :	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

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



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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.
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 :

Hazardous ingredient	CAS-nr.	method
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National established exposure limits, United Kingdom			
methylal	109-87-5	TWA	1000 ppm
		STEL	1250 ppm
butan-2-ol	78-92-2	TWA	100 ppm
		STEL	150 ppm
tetrafluoroethane	811-97-2	TWA	1000 ppm

8.2. Exposure controls

Control procedures : Ensure adequate ventilation
 Keep away from heat and sources of ignition

Personal protection : Take precautions to avoid contact with skin and eyes when handling the product.
 Ensure adequate ventilation

inhalation : In case of insufficient ventilation, wear suitable respiratory equipment.
 recommended respiratory protection: Air purifying respirator equipped with organic gas/vapor cartridge (type AX)

hands and skin : Wear suitable protective gloves
 Recommended gloves: (VITON)

eyes : Wear safety goggles according to EN 166.

Environmental protection: 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)

Apperance : physical state : Liquid under pressure.

colour : Colorless.

odour : Solvent.

pH : Not applicable.

Boiling point/range : Not available.

Flash point : < 0 °C

Evaporation rate : Not available.

Explosion limits : upper limit : Not available.

lower limit : Not available.

Vapour pressure : Not available.

Relative density : 1.39 g/cm³ (@ 20°C).

Solubility in water : Insoluble in water

Auto-ignition : > 200 °C

Viscosity : Not available.

9.2. Other information

VOC: 1220 g/l

SECTION 10: Stability and reactivity

10.1. Reactivity



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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,CO2
 HF may be formed under condition of fire

SECTION 11: Toxicological information

11.1. Information on toxicological effects

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

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		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	64742-49-0	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.

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	64742-49-0	IC50 algae	55 mg/l
		LC50 fish	> 1 mg/l
		EC50 daphnia	3.87 mg/l

12.2. Persistence and degradability



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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)

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

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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 MARPOL73/78 and the IBC Code

Not applicable.

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.
Dir. 2013/10/EU, 2008/47/EC amendment of the aerosol dispenser directive 75/324/EEC.
EU-directive 99/45/EC
Regulation (EC) No 1272/2008 (CLP)
Regulation (EC) No 1907/2006 (REACH)

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

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



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