

## Metal Clean F (aerosol)

**Version number:**  
3.6  
Replaces version: (2)

**Date of issue**  
2021-02-25

**Revision:**  
2021-02-25.

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

#### 1.1 Product identifier

Trade name	<b>Metal Clean F (aerosol)</b>
Registration number (REACH)	not relevant (mixture)
Unique formula identifier - UFI	X800-30H4-N00H-P6JC

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

Scope	cleaning agent
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#### 1.3 Details of the supplier of the safety data sheet

Interflon BV  
Belder 47  
4704 RK Roosendaal  
Netherlands

Telephone: +31 (0)165 553911  
e-mail: Service@interflon.com  
Website: www.interflon.com

e-mail (competent person) Service@interflon.com (Service lab)

#### 1.4 Emergency telephone number

Poison centre					
Country	Name	Postal code/ city	Telephone	Telefax	Opening hours
United Kingdom	UK National Poison Centre		UK National Poisons Emergency number: +44 870 600 6266		Mon - Fri 12:00 AM - 11:00 PM

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

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

Section	Hazard class	Category	Hazard class and category	Hazard statement
2.3	aerosols	1	Aerosol 1	H222,H229
3.2	skin corrosion/irritation	2	Skin Irrit. 2	H315
3.3	serious eye damage/eye irritation	2	Eye Irrit. 2	H319
3.8D	specific target organ toxicity - single exposure (narcotic effects, drowsiness)	3	STOT SE 3	H336
4.1C	hazardous to the aquatic environment - chronic hazard	2	Aquatic Chronic 2	H411

For full text of abbreviations: see SECTION 16.

The most important adverse physicochemical, human health and environmental effects

Spillage and fire water can cause pollution of watercourses.

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### 2.2 Label elements

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

- Signal word. danger

- Pictograms

GHS02, GHS07,  
GHS09

- Hazard statements

H222	Extremely flammable aerosol.
H229	Pressurised container: May burst if heated.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.

- Precautionary 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.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P312	Call a POISON CENTRE/doctor if you feel unwell.
P391	Collect spillage.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
P501	Dispose of contents/container to industrial combustion plant.

Additional labelling according to Directive 75/324/EEC relating to aerosol dispensers

Extremely flammable. Pressurized container: may burst if heated. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not pierce or burn, even after use. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

- Hazardous ingredients for labelling Hydrocarbons, C7-C9, isoalkanes, Isopropanol

### 2.3 Other hazards

of no significance

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Not relevant (mixture)

### 3.2 Mixtures

Product description Mixture of solvents and additives

Hazardous ingredients

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Name of substance	Identifier	Wt%	Classification acc. to GHS	Notes
Ethanol	CAS No 64-17-5  EC No 200-578-6  REACH Reg. No 01-2119457610-43-xxxx	50 – < 75	Flam. Liq. 2 / H225 Eye Irrit. 2 / H319	IARC: 1
Hydrocarbons, C7-C9, isoalkanes	CAS No 64741-66-8  EC No 921-728-3  Index No 649-276-00-X  REACH Reg. No 01-2119471305-42-xxxx	25 – < 50	Flam. Liq. 2 / H225 Skin Irrit. 2 / H315 STOT SE 3 / H336 Asp. Tox. 1 / H304 Aquatic Chronic 2 / H411	
Isopropanol	CAS No 67-63-0  EC No 200-661-7  Index No 603-117-00-0  REACH Reg. No 01-2119457558-25	1 – < 5	Flam. Liq. 2 / H225 Eye Irrit. 2 / H319 STOT SE 3 / H336	GHS-HC
carbon dioxide	CAS No 124-38-9  EC No 204-696-9	1 – < 5	Press. Gas C / H280	IOELV

### Notes

GHS-HC: Harmonised classification (the classification of the substance corresponds to the entry in the list according to 1272/2008/EC, Annex VI)

IARC: 1: IARC group 1: carcinogenic to humans (International Agency for Research on Cancer)

IOELV: Substance with a community indicative occupational exposure limit value

Name of substance	Specific Conc. Limits	M-Factors	ATE	Exposure route
Ethanol	Eye Irrit. 2; H319: C ≥ 50 %	-	-	

### Regulation 648/2004/EC on detergents

Wt%	Constituents	Weight % content (or range)
≥30%	aliphatic hydrocarbons	30 % and more

For full text of Hazard- and EU Hazard-statements: see SECTION 16.

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### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

##### General notes

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

##### Following inhalation

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. In case of respiratory tract irritation, consult a physician. Provide fresh air.

##### Following skin contact

Wash with plenty of soap and water.

##### Following eye contact

Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

##### Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting.

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

Symptoms and effects are not known to date.

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

none

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

##### Suitable extinguishing media

Water mist, Alcohol resistant foam, Fire extinguishing powder

##### Unsuitable extinguishing media

Water jet

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

##### Hazardous combustion products

Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>)

#### 5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Co-ordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance. Use suitable breathing apparatus.

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

For non-emergency personnel

Remove persons to safety.

For emergency responders

Wear breathing apparatus if exposed to vapours/dust/spray/gases.

**6.2 Environmental precautions**

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it. If substance has entered a water course or sewer, inform the responsible authority.

**6.3 Methods and material for containment and cleaning up**

Advice on how to contain a spill

Covering of drains

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

**6.4 Reference to other sections**

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

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

Recommendations

- Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation. Use only in well-ventilated areas.

Advice on general occupational hygiene

Remove contaminated clothing and protective equipment before entering eating areas. Never place chemicals in containers that are normally used for food or drink.

**7.2 Conditions for safe storage, including any incompatibilities**

Conditions of storage

Store in accordance with local/regional/national/international regulations. Keep container tightly closed and in a well-ventilated place.

Managing of associated risks

- Flammability hazards

Do not spray on an open flame or other ignition source. Protect from sunlight. Keep in a cool place.

- Packaging compatibilities

Only packagings which are approved (e.g. acc. to ADR) may be used.

**7.3 Specific end use(s)**

See section 16 for a general overview.

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### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

Occupational exposure limit values (Workplace Exposure Limits)											
Country	Name of agent	CAS No	Identifier	TWA [ppm]	TWA [mg/m <sup>3</sup> ]	STEL [ppm]	STEL [mg/m <sup>3</sup> ]	Ceiling-C [ppm]	Ceiling-C [mg/m <sup>3</sup> ]	Notation	Source
EU	carbon dioxide	124-38-9	IOELV	5,000	9,000						2006/15/EC
GB	carbon dioxide	124-38-9	WEL	5,000	9,150	15,000	27,400				EH40/2005
GB	ethanol	64-17-5	WEL	1,000	1,920						EH40/2005
GB	propan-2-ol	67-63-0	WEL	400	999	500	1,250				EH40/2005

**Notation**

**Ceiling-C** ceiling value is a limit value above which exposure should not occur  
**STEL** short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified)  
**TWA** time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified)

no data available

Relevant DNELs of components of the mixture						
Name of substance	CAS No	Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time
Hydrocarbons, C7-C9, isoalkanes	64741-66-8	DNEL	2,035 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	chronic - systemic effects
Hydrocarbons, C7-C9, isoalkanes	64741-66-8	DNEL	773 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects

#### 8.2 Exposure controls

##### General safety precautions

Use only in well-ventilated areas.  
 In case of insufficient ventilation, wear suitable respiratory equipment.  
 Avoid contact with skin and eyes.  
 Keep away from food, drink and animal feedingstuffs. Do not breathe gas/vapour/spray. Wash hands after use.

##### Individual protection measures (personal protective equipment)

###### Eye/face protection

Use safety goggle with side protection.

###### Skin protection

###### - Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits.

###### - Other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

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**Respiratory protection**

Type: A-P2 (combined filters against particles and organic gases and vapours, colour code: Brown/White).

**Environmental exposure controls**

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

**SECTION 9: Physical and chemical properties****9.1 Information on basic physical and chemical properties**

Physical state	liquid, gaseous (spray aerosol)
Colour	colourless
Odour	characteristic
Melting point/freezing point	<-20 °C
Boiling point or initial boiling point and boiling range	78 °C
Flammability	flammable aerosol in accordance with GHS criteria
Lower and upper explosion limit	0.8 vol% - 7.7 vol%
Flash point	-9 °C
Auto-ignition temperature	>200 °C
Decomposition temperature	not relevant
pH (value)	not determined
Kinematic viscosity	not relevant

**Solubility(ies)**

Water solubility	1 g/l at 20 °C
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**Partition coefficient**

Partition coefficient n-octanol/water (log value)	this information is not available
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Vapour pressure	6,500 hPa at 20 °C
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**Density and/or relative density**

Density	0.759 g/cm <sup>3</sup> at 20 °C
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Particle characteristics	no data available
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### 9.2 Other information

Information with regard to physical hazard classes

Aerosols

- Components (flammable)	96.5 %
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Other safety characteristics

Propellant content	3.5 %
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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials". The mixture contains reactive substance(s). Risk of ignition.

### 10.2 Chemical stability

See below "Conditions to avoid".

### 10.3 Possibility of hazardous reactions

No known hazardous reactions.

### 10.4 Conditions to avoid

Do not spray on an open flame or other ignition source. Keep away from heat.

Hints to prevent fire or explosion

Protect from sunlight.

### 10.5 Incompatible materials

Oxidisers

### 10.6 Hazardous decomposition products

Hazardous combustion products: see section 5.

## SECTION 11: Toxicological information

### 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Test data are not available for the complete mixture.

Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

#### Classification according to GHS (1272/2008/EC, CLP)

Acute toxicity

Shall not be classified as acutely toxic.

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/eye irritation

Causes serious eye irritation.



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**Respiratory or skin sensitisation**

Shall not be classified as a respiratory or skin sensitiser.

**Germ cell mutagenicity**

Shall not be classified as germ cell mutagenic.

**Carcinogenicity**

Shall not be classified as carcinogenic.

**Reproductive toxicity**

Shall not be classified as a reproductive toxicant.

**Specific target organ toxicity - single exposure**

May cause drowsiness or dizziness.

**Specific target organ toxicity - repeated exposure**

Shall not be classified as a specific target organ toxicant (repeated exposure).

**Aspiration hazard**

Shall not be classified as presenting an aspiration hazard.

### 11.2 Information on other hazards

There is no additional information.

## SECTION 12: Ecological information

### 12.1 Toxicity

Toxic to aquatic life with long lasting effects.

Aquatic toxicity (chronic) of components of the mixture					
Name of substance	CAS No	Endpoint	Value	Species	Exposure time
Ethanol	64-17-5	LC50	1,806 mg/l	aquatic invertebrates	10 d
Ethanol	64-17-5	ErC50	675 mg/l	algae	4 d
Hydrocarbons, C7-C9, isoalkanes	64741-66-8	EL50	1.6 mg/l	aquatic invertebrates	21 d
Hydrocarbons, C7-C9, isoalkanes	64741-66-8	EC50	0.23 mg/l	aquatic invertebrates	21 d

### 12.2 Persistence and degradability

Degradability of components of the mixture						
Name of substance	CAS No	Process	Degradation rate	Time	Method	Source
Ethanol	64-17-5	oxygen depletion	69 %	5 d		ECHA
Hydrocarbons, C7-C9, isoalkanes	64741-66-8	oxygen depletion	10.5 %	15 d		ECHA

### 12.3 Bioaccumulative potential

Data are not available.

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Bioaccumulative potential of components of the mixture				
Name of substance	CAS No	BCF	Log KOW	BOD5/COD
Ethanol	64-17-5		-0.77	0.6211

### 12.4 Mobility in soil

Data are not available.

### 12.5 Results of PBT and vPvB assessment

Data are not available.

### 12.6 Endocrine disrupting properties

None of the ingredients are listed.

### 12.7 Other adverse effects

Data are not available.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packagings

It is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used. Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

#### Relevant provisions relating to waste

List of wastes

- Product
- 15 01 04 metallic packaging

#### Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

## SECTION 14: Transport information

### 14.1 UN number or ID number

ADR/RID/ADN	UN 1950
IMDG-Code	UN 1950
ICAO-TI	UN 1950

### 14.2 UN proper shipping name

ADR/RID/ADN	AEROSOLS
IMDG-Code	AEROSOLS
ICAO-TI	Aerosols, flammable

### 14.3 Transport hazard class(es)

ADR/RID/ADN	2 (2.1)
IMDG-Code	2.1

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ICAO-TI	2.1
<b>14.4 Packing group</b>	not assigned
<b>14.5 Environmental hazards</b>	hazardous to the aquatic environment
Environmentally hazardous substance (aquatic environment)	Hydrocarbons, C7-C9, isoalkanes
<b>14.6 Special precautions for user</b>	
Provisions for dangerous goods (ADR) should be complied within the premises.	
<b>14.7 Maritime transport in bulk according to IMO instruments</b>	
The cargo is not intended to be carried in bulk.	

### Information for each of the UN Model Regulations

#### **Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN) - Additional information**

Classification code	5F
Danger label(s)	2.1, fish and tree



Environmental hazards	yes (hazardous to the aquatic environment)
Special provisions (SP)	190, 327, 344, 625
Excepted quantities (EQ)	E0
Limited quantities (LQ)	1 L
Transport category (TC)	2
Tunnel restriction code (TRC)	D

#### **International Maritime Dangerous Goods Code (IMDG) - Additional information**

Marine pollutant	yes (hazardous to the aquatic environment) (Hydrocarbons, C7-C9, isoalkanes)
Danger label(s)	2.1, fish and tree



Special provisions (SP)	63, 190, 277, 327, 344, 381, 959
Excepted quantities (EQ)	E0
Limited quantities (LQ)	1 L
EmS	F-D, S-U
Stowage category	-

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### International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information

Environmental hazards YES (hazardous to the aquatic environment)

Danger label(s) 2.1



Special provisions (SP) A145, A167

Excepted quantities (EQ) E0

Limited quantities (LQ) 30 kg

### SECTION 15: Regulatory information

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

##### Relevant provisions of the European Union (EU)

##### Restrictions according to REACH, Annex XVII

Dangerous substances with restrictions (REACH, Annex XVII)				
Name of substance	Name acc. to inventory	CAS No	Restriction	No
Ethanol	this product meets the criteria for classification in accordance with Regulation No 1272/2008/EC		R3	3
Ethanol	flammable / pyrophoric		R40	40
Isopropanol	this product meets the criteria for classification in accordance with Regulation No 1272/2008/EC		R3	3
Isopropanol	flammable / pyrophoric		R40	40
Hydrocarbons, C7-C9, isoalkanes	this product meets the criteria for classification in accordance with Regulation No 1272/2008/EC		R3	3
Hydrocarbons, C7-C9, isoalkanes	flammable / pyrophoric		R40	40

##### Legend

R3

- Shall not be used in:
  - ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,
  - tricks and jokes,
  - games for one or more participants, or any article intended to be used as such, even with ornamental aspects,
- Articles not complying with paragraph 1 shall not be placed on the market.
- Shall not be placed on the market if they contain a colouring agent, unless required for fiscal reasons, or perfume, or both, if they:
  - can be used as fuel in decorative oil lamps for supply to the general public, and,
  - present an aspiration hazard and are labelled with R65 or H304,
- Decorative oil lamps for supply to the general public shall not be placed on the market unless they conform to the European Standard on Decorative oil lamps (EN 14059) adopted by the European Committee for Standardisation (CEN).
- Without prejudice to the implementation of other Community provisions relating to the classification, packaging and labelling of dangerous substances and mixtures, suppliers shall ensure, before the placing on the market, that the following requirements are met:
  - lamp oils, labelled with R65 or H304, intended for supply to the general public are visibly, legibly and indelibly marked as follows: 'Keep lamps filled with this liquid out of the reach of children'; and, by 1 December 2010, 'Just a sip of lamp oil - or even sucking the wick of lamps - may lead to life-threatening lung damage';
  - grill lighter fluids, labelled with R65 or H304, intended for supply to the general public are legibly and indelibly marked by 1 December 2010 as follows: 'Just a sip of grill lighter may lead to life threatening lung damage';
  - lamp oils and grill lighters, labelled with R65 or H304, intended for supply to the general public are packaged in black opaque containers not exceeding 1 litre by 1 December 2010.
- No later than 1 June 2014, the Commission shall request the European Chemicals Agency to prepare a dossier, in accordance with Article 69 of the present Regulation with a view to ban, if appropriate, grill lighter fluids and fuel for decorative lamps, labelled R65 or H304, intended for supply to the general public.
- Natural or legal persons placing on the market for the first time lamp oils and grill lighter fluids, labelled with R65 or H304,

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### Legend

- shall by 1 December 2011, and annually thereafter, provide data on alternatives to lamp oils and grill lighter fluids labelled R65 or H304 to the competent authority in the Member State concerned. Member States shall make those data available to the Commission.
- R40
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,
    - 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 (2).
  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.

### List of substances subject to authorisation (REACH, Annex XIV) / SVHC - candidate list

none of the ingredients are listed

### Seveso Directive

2012/18/EU (Seveso III)				
No	Dangerous substance/hazard categories	Qualifying quantity (tonnes) for the application of lower and upper-tier requirements		Notes
E2	environmental hazards (hazardous to the aquatic environment, cat. 2)	200	500	57)

#### Notation

57) hazardous to the Aquatic Environment in category Chronic 2

### Deco-Paint Directive (2004/42/EC)

VOC content	96.5 %
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### Directive on industrial emissions (VOCs, 2010/75/EU)

VOC content	96.5 %
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### Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS) - Annex II

none of the ingredients are listed

### Regulation 166/2006/EC concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)

Pollutant release and transfer registers (PRTR)			
Name of substance	CAS No	Remarks	Threshold for releases to air (kg/year)
carbon dioxide	124-38-9		100 million

### Water Framework Directive (WFD)

none of the ingredients are listed

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### National inventories

Country	Inventory	Status
CA	DSL	all ingredients are listed
EU	REACH Reg.	all ingredients are listed
US	TSCA	all ingredients are listed

#### Legend

DSL Domestic Substances List (DSL)  
REACH Reg. REACH registered substances  
TSCA Toxic Substance Control Act

### 15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

### SECTION 16: Other information

#### Indication of changes (revised safety data sheet)

Section	Former entry (text/value)	Actual entry (text/value)	Safety-rel- evant
1.2	Scope: lubricant	Scope: cleaning agent	yes
2.3	Other hazards	Other hazards: of no significance	yes
2.3	Results of PBT and vPvB assessment: This mixture does not contain any substances that are assessed to be a PBT or a vPvB.		yes
3.2		Hazardous ingredients: change in the listing (table)	yes
3.2		Hazardous ingredients: change in the listing (table)	yes
9.1	Appearance		yes
9.1	Physical state: aerosol (spray aerosol)	Physical state: liquid, gaseous (spray aerosol)	yes
9.1	Other safety parameters		yes
9.1	Initial boiling point and boiling range	Boiling point or initial boiling point and boiling range	yes
9.1	Flammability (solid, gas)	Flammability	yes
9.1	Explosive limits	Lower and upper explosion limit: 0.8 vol% - 7.7 vol%	yes
9.1	Evaporation rate: 2.3 (n-butyl acetate = 1)		yes
9.1	Lower explosion limit (LEL): 0.8 vol%		yes
9.1	Upper explosion limit (UEL): 7.7 vol%		yes
9.1		Decomposition temperature: not relevant	yes

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Section	Former entry (text/value)	Actual entry (text/value)	Safety-relevant
9.1		Kinematic viscosity: not relevant	yes
9.1	- n-octanol/water (log KOW)	Partition coefficient n-octanol/water (log value)	yes
9.1		Density and/or relative density	yes
9.1	Vapour density: this information is not available		yes
9.1	Viscosity		yes
9.1	Dynamic viscosity: 2.43 mPa s at 20 °C		yes
9.1	Explosive properties: none		yes
9.1	Oxidising properties: none		yes
9.1		Particle characteristics: no data available	yes
9.2		Information with regard to physical hazard classes	yes
9.2		Aerosols	yes
9.2		Components (flammable): 96.5 %	yes
9.2		Other safety characteristics	yes
11.1	Information on toxicological effects	Information on hazard classes as defined in Regulation (EC) No 1272/2008	yes
11.2		Information on other hazards: There is no additional information.	yes
12.6	Endocrine disrupting potential	Endocrine disrupting properties	yes
12.7	Other adverse effects	Other adverse effects: Data are not available.	yes
14.1	UN number: 1950	UN number or ID number	yes
14.1		ADR/RID/ADN: UN 1950	yes
14.1		IMDG-Code: UN 1950	yes
14.1		ICAO-TI: UN 1950	yes
14.2	UN proper shipping name: AEROSOLS	UN proper shipping name	yes
14.2		ADR/RID/ADN: AEROSOLS	yes
14.2		IMDG-Code: AEROSOLS	yes

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Section	Former entry (text/value)	Actual entry (text/value)	Safety-relevant
14.2		ICAO-TI: Aerosols, flammable	yes
14.3	Class: 2 (gases) (aerosol) (environmentally hazardous)		yes
14.3	Subsidiary risk(s): 2.1 (flammable)		yes
14.3		ADR/RID/ADN: 2 (2.1)	yes
14.3		IMDG-Code: 2.1	yes
14.3		ICAO-TI: 2.1	yes
14.4	Packing group: not assigned to a packing group	Packing group: not assigned	yes
14.7	Transport in bulk according to Annex II of MARPOL and the IBC Code	Maritime transport in bulk according to IMO instruments	yes
14.7	Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN)	Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN) - Additional information	yes
14.7	UN number: 1950		yes
14.7	Proper shipping name: AEROSOLS		yes
14.7	Class: 2		yes
14.7	International Maritime Dangerous Goods Code (IMDG)	International Maritime Dangerous Goods Code (IMDG) - Additional information	yes
14.7	UN number: 1950		yes
14.7	Proper shipping name: AEROSOLS		yes
14.7	Class: 2.1		yes
14.7	Marine pollutant: yes (hazardous to the aquatic environment)	Marine pollutant: yes (hazardous to the aquatic environment) (Hydrocarbons, C7-C9, isoalkanes)	yes
14.7	International Civil Aviation Organization (ICAO-IATA/DGR)	International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information	yes
14.7	UN number: 1950		yes
14.7	Proper shipping name: Aerosols, flammable		yes
14.7	Class: 2.1		yes
16		Abbreviations and acronyms: change in the listing (table)	yes



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Section	Former entry (text/value)	Actual entry (text/value)	Safety-relevant
16	Key literature references and sources for data: Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures. Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU. Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).	Key literature references and sources for data: Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures. Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU. Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).	yes

### Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
2006/15/EC	Commission Directive establishing a second list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Directives 91/322/EEC and 2000/39/EC
ADN	Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways)
ADR	Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
ADR/RID/ADN	European Agreements concerning the International Carriage of Dangerous Goods by Road/Rail/Inland Waterways (ADR/RID/ADN)
Aquatic Chronic	Hazardous to the aquatic environment - chronic hazard
Asp. Tox.	Aspiration hazard
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BOD	Biochemical Oxygen Demand
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
Ceiling-C	Ceiling value
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
COD	Chemical oxygen demand
DGR	Dangerous Goods Regulations (see IATA/DGR)
DNEL	Derived No-Effect Level
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval
EC No	The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)
EH40/2005	EH40/2005 Workplace exposure limits ( <a href="http://www.nationalarchives.gov.uk/doc/open-government-licence/">http://www.nationalarchives.gov.uk/doc/open-government-licence/</a> )
EINECS	European Inventory of Existing Commercial Chemical Substances
EL50	Effective Loading 50 %: the EL50 corresponds to the loading rate required to produce a response in 50% of the test organisms
ELINCS	European List of Notified Chemical Substances
EmS	Emergency Schedule

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Abbr.	Descriptions of used abbreviations
ErC50	≡ EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control
Eye Dam.	Seriously damaging to the eye
Eye Irrit.	Irritant to the eye
Flam. Liq.	Flammable liquid
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
ICAO-TI	Technical instructions for the safe transport of dangerous goods by air
IMDG	International Maritime Dangerous Goods Code
IMDG-Code	International Maritime Dangerous Goods Code
index No	The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008
IOELV	Indicative occupational exposure limit value
LC50	Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval
log KOW	n-Octanol/water
NLP	No-Longer Polymer
PBT	Persistent, Bioaccumulative and Toxic
ppm	Parts per million
Press. Gas	Gas under pressure
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail)
Skin Corr.	Corrosive to skin
Skin Irrit.	Irritant to skin
STEL	Short-term exposure limit
STOT SE	Specific target organ toxicity - single exposure
SVHC	Substance of Very High Concern
TWA	Time-weighted average
UFI	Unique formula identifier
VOC	Volatile Organic Compounds
vPvB	Very Persistent and very Bioaccumulative
WEL	Workplace exposure limit

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### Key literature references and sources for data

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures. Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU.

Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

### Classification procedure

Physical and chemical properties: The classification is based on tested mixture.

Health hazards, Environmental hazards: The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

### List of relevant phrases (code and full text as stated in chapter 2 and 3)

Code	Text
H222	Extremely flammable aerosol.
H225	Highly flammable liquid and vapour.
H229	Pressurised container: May burst if heated.
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.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.

### Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.