Safety Data Sheet

Regulation EC No 1907/2006 Art.31

Productname :	FORMULA 1/HT	**Creationdate :**	10.05.18 Version : 3.0
Ref.Nr.:	UDS000382_3_20180510 (EN)	**Replaces:**	UDS000382_20170629

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

1.1. Product identifier

FORMULA 1/HT
Aerosol

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

Release Agents

1.3. Details of the supplier of the safety data sheet

CRC Industries UK Ltd.
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 2 Flammable aerosol. Pressurised container: May burst if heated.

Classification is based on test data.

Health:	Not classified

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

Hazard pictogram(s):

Signal word:	Warning
Hazard statement(s):	H223 : Flammable aerosol. 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. P211 : Do not spray on an open flame or other ignition source. 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.

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
trans-1,3,3,3-tetrafluoroprop-1-ene	01-0000019758-54	29118-24-9	471-480-0	60-100	Press. Gas	H280	
Hydrocarbons, C7, n-alkanes,isoalkanes, cyclic	01-2119475515-33	-	(927-510-4)	1-5	Flam. Liq. 2, Skin Irrit. 2, STOT SE 3, Asp. Tox. 1, Aquatic Chronic 2	H225,H315,H336,H304,H411	Q

Explanation notes
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

Contact with eyes :	If substance has got into eyes, immediately wash out with plenty of water If eye irritation persists: Get medical advice/attention.
Contact with skin :	Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention.
Inhalation :	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
Ingestion :	If swallowed do not induce vomiting because of risk of aspiration into the lungs. If aspiration is suspected obtain immediate medical attention

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 :	After vomiting of swallowed product aspiration into lungs is likely. Solvents may induce chemical pneumonia. Symptoms : sore throat, abdominal pain, nausea, vomiting
Skin contact :	May cause irritation. Symptoms : redness and pain
Eye contact :	May cause irritation. Symptoms : redness and pain

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

General Advice :	If you feel unwell, seek medical advice (show the label where possible If symptoms persist always call a doctor

SECTION 5: Firefighting measures

5.1. Extinguishing media

foam, carbon dioxide or dry agent
Do not use water jet extinguishing media, due to the risk of spreading fire.

5.2. Special hazards arising from the substance or mixture

Aerosols may explode if heated above 50°C
Forms hazardous decomposition products
CO,CO2

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
If polluted water reaches drainage systems or water courses, immediately inform appropriate authorities

6.3. Methods and material for containment and cleaning up

Absorb spillage in suitable inert material

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
Take precautionary measures against static discharges
Equipment should be earthed
Use explosion-proof electrical/ventilating/lighting/.../equipment.
Use only non-sparking tools.
Do not breathe aerosols or vapours.
Ensure adequate ventilation
Avoid contact with skin and eyes.
Wash thoroughly after use
Wear protective gloves/protective clothing/eye protection/face protection.

7.2. Conditions for safe storage, including any incompatibilities

Pressurized container : protect from sunlight and do not expose to temperatures exceeding 50°C.
Keep out of reach of children.

7.3. Specific end use(s)

Release Agents

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits :

No information available

8.2. Exposure controls

Control procedures :	Ensure adequate ventilation Keep away from heat and sources of ignition Take precautionary measures against static discharges
Personal protection :	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.
inhalation :	In case of insufficient ventilation, wear suitable respiratory equipment.
recommended respiratory protection:	Air purifying respirator equiped with organic gas/vapor cartridge (type A)
hands and skin :	Depending on amount and duration of use and the risk of contact with the product the gloves manufacturer can assist you in the selection of the right glove material and breakthrough time.
Recommended gloves:	Nitrile
eyes :	Wear safety eyewear 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 :	Brown.
odour :	Odorless.
pH :	Not applicable.
Boiling point/range :	94 °C
Flash point :	- 4 °C
Explosion limits : upper limit :	7.0 %
lower limit :	1.1 %
Relative density :	0.88 g/cm3 (@ 20°C).
Solubility in water :	Insoluble in water
Auto-ignition :	> 200 °C

9.2. Other information

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,CO2

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 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
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 :	Inhalation of solvent vapours may give rise to nausea, headaches and dizziness
Ingestion :	After vomiting of swallowed product aspiration into lungs is likely. Solvents may induce chemical pneumonia.
Skin contact :	Prolonged skin contact will result in defatting of the skin, leading to irritation, and in some cases, dermatitis Repeated exposure may cause skin dryness or cracking.
Eye contact :	May cause irritation.

Toxicological data :

Hazardous ingredient	CAS-nr.	method	
Hydrocarbons, C7, n-alkanes,isoalkanes, cyclic	-	LD50 oral rat	> 5840 mg/kg
		LC50 inhal.rat	23.3 mg/l
		LD50 derm.rat	> 2920 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	
Hydrocarbons, C7, n-alkanes,isoalkanes, cyclic	-	IC50 algae	10-30 mg/l
		LC50 fish	> 13.4 mg/l
		EC50 daphnia	3 mg/l

12.2. Persistence and degradability

No information available

12.3. Bioaccumulative potential

No information 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 information available

GWP (global warming potential):	5.53

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.
National regulations :	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:	2.1
ADR/RID - Classification code:	5F

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.

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. H280 : Contains gas under pressure; may explode if heated. H304 : May be fatal if swallowed and enters airways. H315 : Causes skin irritation. H336 : May cause drowsiness or dizziness. H411 : Toxic to aquatic life with long lasting effects.
REVISIONS IN CHAPTRE :	Labelling according to Regulation (EC) No 1272/2008
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.