

Productname : FORMULA 20
Ref.Nr.: BDS000508_3_20170629 (EN)

Creationdate : 29.06.17 Version : 4.0
Replaces: BDS000508_20170106

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

1.1. Product identifier

FORMULA 20
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.
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:	Aerosols, category 1 Extremely flammable aerosol. Pressurised container: May burst if heated.
Classification is based on test data.	
Health:	Skin irritation, category 2 Causes skin irritation. Specific target organ toxicity - single exposure, category 3 May cause drowsiness or dizziness.
Classification based on calculation method.	
Environment:	Hazardous to the aquatic environment, chronic category 2 Toxic to aquatic life with long lasting effects.
Classification based on calculation method.	

Productname : FORMULA 20
 Ref.Nr.: BDS000508_3_20170629 (EN)
 Creationdate : 29.06.17 Version : 4.0
 Replaces: BDS000508_20170106

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008

Product identifier:	Contains: hydrocarbons
Hazard pictogram(s):	  
Signal word:	Danger
Hazard statement(s):	H222 : Extremely flammable aerosol. H229 : Pressurised container: May burst if heated. H315 : Causes skin irritation. H336 : May cause drowsiness or dizziness. H411 : Toxic 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. P261 : Avoid breathing dust/fume/gas/mist/vapours/spray. P271 : Use only outdoors or in a well-ventilated area. 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:	Contains fluorinated greenhouse gases: HFC-134a 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

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
pentane	01-2119459286-30	109-66-0	203-692-4	25-50	Flam. Liq. 2, Asp. Tox. 1, STOT SE 3, Aquatic Chronic 2	H225,H304,H336,H411	A
hydrocarbons.C6.isoalkanes.< 5%	01-	-	(931-	25-	Flam. Liq. 2. Skin Irrit. 2.	H225.H315.H336.H304.H411	Q

Productname : FORMULA 20
Ref.Nr.: BDS000508_3_20170629 (EN)

Creationdate : 29.06.17 Version : 4.0
Replaces: BDS000508_20170106

n-hexane	2119484651-34		254-9)	50	STOT SE 3, Asp. Tox. 1, Aquatic Chronic 2		
tetrafluoroethane	01-2119459374-33	811-97-2	212-377-0	10-25	Press. Gas	H280	B
carbon dioxide	-	124-38-9	204-696-9	1-5	Press. Gas	H280	A,G
Methyldodecyl,methyl(2-fenylpropyl)siloxaan	-	68037-76-3		1-5	Aquatic Chronic 2	H411	

Explanation notes

A : substance with Community workplace exposure limit

B : substance with national established workplace exposure limit

G : exempted from the obligation to register in accordance with art.2(7) of REACH Regulation No 1907/2006

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 IN EYES: Rinse cautiously with water for several minutes. If eye irritation persists: Get medical advice/attention.
Contact with skin :	Take off contaminated clothing and wash before reuse. IF ON SKIN: Rinse cautiously with water for several minutes. 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 :	Irritating to skin 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

Productname : FORMULA 20
Ref.Nr.: BDS000508_3_20170629 (EN)

Creationdate : 29.06.17 Version : 4.0
Replaces: BDS000508_20170106

5.1. Extinguishing media

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

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

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.

Productname : FORMULA 20
Ref.Nr.: BDS000508_3_20170629 (EN)
Creationdate : 29.06.17 Version : 4.0
Replaces: BDS000508_20170106

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 :

Hazardous ingredient	CAS-nr.	method	
EU established exposure limits:			
pentane	109-66-0	TWA	1000 ppm
carbon dioxide	124-38-9	TWA	9000 mg/m3
		STEL	1800 mg/m3
National established exposure limits, United Kingdom			
pentane	109-66-0	TWA	600 ppm
carbon dioxide	124-38-9	TWA	5000 ppm
		STEL	15000 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 Take precautionary measures against static discharges
Personal protection :	Take precautions to avoid contact with skin and eyes when handling the product. In all cases handle and use the product in accordance with good industrial hygiene practices. 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 :	When handling the product wear chemical-resistant gloves (standard EN 374). Use a reusable glove with a minimum breakthrough time of 30 minutes. The breakthrough time of the glove should be longer than the total duration of product use. If work lasts longer than the breakthrough time, gloves should be changed part-way through.
Recommended gloves:	Nitrile
eyes :	Wear safety eyewear according to EN 166.
Environmental protection:	Avoid release to the environment.

Productname : FORMULA 20
Ref.Nr.: BDS000508_3_20170629 (EN)

Creationdate : 29.06.17 Version : 4.0
Replaces: BDS000508_20170106

Collect spillage.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Apperance : physical state : Liquid under pressure.
colour : Colorless.
odour : Solvent.
pH : Not applicable.
Boiling point/range : 40-65 °C
Flash point : < 0 °C
Evaporation rate : Not available.
Explosion limits : upper limit : Not available.
lower limit : Not available.
Vapour pressure : Not available.
Relative density : 0.675 g/cm3 (@ 20°C).
Solubility in water : Insoluble in water
Auto-ignition : > 200 °C
Viscosity : Not available.

9.2. Other information

VOC = volatile organic compounds 660 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

Productname : FORMULA 20
Ref.Nr.: BDS000508_3_20170629 (EN)

Creationdate : 29.06.17 Version : 4.0
Replaces: BDS000508_20170106

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

acute toxicity:	based on available data the classification criteria are not met
skin corrosion/irritation:	Causes skin irritation.
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:	May cause drowsiness or dizziness.
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 :	Irritating to skin
Eye contact :	May cause irritation.

Toxicological data :

Hazardous ingredient	CAS-nr.	method	
pentane	109-66-0	LD50 oral rat	> 5000 mg/kg
		LD50 derm.rabit	> 3000 mg/kg
tetrafluoroethane	811-97-2	LC50 inhal.rat	567000 ppm
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 2
Toxic to aquatic life with long lasting effects.

Productname : FORMULA 20
Ref.Nr.: BDS000508_3_20170629 (EN)

Creationdate : 29.06.17 Version : 4.0
Replaces: BDS000508_20170106

Ecotoxicological data:

Hazardous ingredient	CAS-nr.	method	
tetrafluoroethane	811-97-2	LC50 fish	450 mg/l
		EC50 daphnia	980 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): 203

(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

Productname :	FORMULA 20	Creationdate :	29.06.17 Version : 4.0
Ref.Nr.:	BDS000508_3_20170629 (EN)	Replaces:	BDS000508_20170106

14.2. UN proper shipping name

Proper shipping name: AEROSOLS (naphta, pentane)

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:	Yes
IMDG - Marine pollutant:	Marine pollutant
IATA/ICAO - Environmentally hazardous:	Yes

14.6. Special precautions for user

ADR/RID - Tunnelcode:	(D)
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.

Productname :	FORMULA 20	Creationdate :	29.06.17 Version : 4.0
Ref.Nr.:	BDS000508_3_20170629 (EN)	Replaces:	BDS000508_20170106

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 :

acronyms and synonyms:

8.2. Exposure controls

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.

Apart from any fair dealing for purposes of study, research and review of health, safety and environmental risks, no part of these documents may be reproduced by any process without written permission from CRC.