



MOTOR STARTER

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Issue date: 27/06/2023 Revision date: 13/06/2023 Supersedes version of: 30/11/2022 Version: 2.0

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

1.1. Product identifier

Product name : MOTOR STARTER
UFI : REQX-Y8ME-100A-6JFS
Product code : BDS000031AE
Vaporizer : Aerosol

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

1.2.1. Relevant identified uses

Main use category : Professional use
Use of the substance/mixture : Car Care

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Supplier

CRC Industries Europe B.V.
Touwslagerstraat 1
9240 Zele
Belgium
T +32(0)52/45.60.11 - F +32(0)52/45.00.34
hse@crcind.com - www.crcind.com

1.4. Emergency telephone number

Emergency number : +32(0)52/45.60.11
Office hours: 9-17h CET

Country	Organisation/Company	Address	Emergency number	Comment
Belgium	Centre Anti-Poisons/Antigifcentrum c/o Hôpital Militaire Reine Astrid	Rue Bruyn 1 1120 Brussels	+32 70 245 245	Please dial: 070 245 245 for any urgent questions about intoxication (free of charge 24/7), if not accessible, dial: 02 264 96 30 (standard fee)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Aerosol, Category 1 H222;H229
Acute toxicity (oral), Category 4 H302
Skin corrosion/irritation, Category 2 H315
Serious eye damage/eye irritation, Category 2 H319
Specific target organ toxicity – Single exposure, Category 3, Narcosis H336
Aspiration hazard, Category 1 H304
Hazardous to the aquatic environment – Chronic Hazard, Category 2 H411
Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

Pressurised container: May burst if heated. Extremely flammable aerosol. May cause drowsiness or dizziness. Harmful if swallowed. Causes skin irritation. Causes serious eye irritation. May be fatal if swallowed and enters airways. Toxic to aquatic life with long lasting effects.

MOTOR STARTER

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

2.2. Label elements

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

Hazard pictograms (CLP)



Signal word (CLP)

Contains

Hazard statements (CLP)

Precautionary statements (CLP)

EUH-statements

- : Danger
- : diethyl ether; ether; acetone; propan-2-one; propanone; Hydrocarbons, C6, isoalkanes, <5% n-hexane; pentane
- : H222 - Extremely flammable aerosol.
H229 - Pressurised container: May burst if heated.
H302 - Harmful if swallowed.
H315 - Causes skin irritation.
H319 - Causes serious eye irritation.
H336 - May cause drowsiness or dizziness.
H411 - Toxic to aquatic life with long lasting effects.
- : 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 vapours/spray.
P271 - Use only outdoors or in a well-ventilated area.
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P410+P412 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C.
P501 - Dispose of contents/container to a hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.
- : EUH019 - May form explosive peroxides.

2.3. Other hazards

Contains no PBT/vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

Other information

- : The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
propane (Propellant gas (Aerosol)) substance with national workplace exposure limit(s) (BE)	CAS-No.: 74-98-6 EC-No.: 200-827-9 EC Index-No.: 601-003-00-5 REACH-no: 01-2119486944-21	25 – 50	Flam. Gas 1, H220 Press. Gas (Liq.), H280

MOTOR STARTER

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
diethyl ether; ether substance with national workplace exposure limit(s) (BE); substance with a Community workplace exposure limit	CAS-No.: 60-29-7 EC-No.: 200-467-2 EC Index-No.: 603-022-00-4 REACH-no: 01-2119535785-29	10 – 25	Flam. Liq. 1, H224 Acute Tox. 4 (Oral), H302 (ATE=500 mg/kg bodyweight) STOT SE 3, H336 EUH019, EUH066
acetone; propan-2-one; propanone substance with national workplace exposure limit(s) (BE); substance with a Community workplace exposure limit	CAS-No.: 67-64-1 EC-No.: 200-662-2 EC Index-No.: 606-001-00-8 REACH-no: 01-2119471330-49	10 – 25	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 EUH066
Hydrocarbons, C6, isoalkanes, <5% n-hexane	EC-No.: 931-254-9 REACH-no: 01-2119484651-34	10 – 25	Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
pentane substance with national workplace exposure limit(s) (BE); substance with a Community workplace exposure limit	CAS-No.: 109-66-0 EC-No.: 203-692-4 EC Index-No.: 601-006-00-1	10 – 25	Flam. Liq. 2, H225 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411 EUH066
butane (Propellant gas (Aerosol)) substance with national workplace exposure limit(s) (BE)	CAS-No.: 106-97-8 EC-No.: 203-448-7 EC Index-No.: 601-004-00-0 REACH-no: 01-2119474691-32	2,5 – 10	Flam. Gas 1, H220 Press. Gas (Liq.), H280
Distillates (petroleum), hydrotreated middle	CAS-No.: 64742-46-7 EC-No.: 265-148-2 EC Index-No.: 649-221-00-X REACH-no: 01-2119489867-12	1 – 5	Acute Tox. 4 (Inhalation), H332 (ATE=1,5 mg/l/4h) Skin Irrit. 2, H315 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
isobutane (Propellant gas (Aerosol)) substance with national workplace exposure limit(s) (BE)	CAS-No.: 75-28-5 EC-No.: 200-857-2 EC Index-No.: 601-004-00-0 REACH-no: 01-2119485395-27	1 – 2,5	Flam. Gas 1, H220 Press. Gas (Liq.), H280

Product subject to CLP Article 1.1.3.7. The disclosure rules of the components is modified in this case.

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Call a physician immediately. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. If signs/symptoms develop, get medical attention.
First-aid measures after skin contact	: Wash skin with plenty of water. Take off contaminated clothing. If skin irritation occurs: Get medical advice/attention. Seek medical attention if irritation develops.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. Seek medical attention if irritation develops.
First-aid measures after ingestion	: Rinse mouth. Do not induce vomiting. Call a physician immediately. Rinse mouth. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

MOTOR STARTER

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

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

Symptoms/effects	: May cause drowsiness or dizziness.
Symptoms/effects after skin contact	: Irritation. Repeated exposure may cause skin dryness or cracking.
Symptoms/effects after eye contact	: Eye irritation.
Symptoms/effects after ingestion	: Risk of lung oedema.

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

Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: Extremely flammable aerosol.
Explosion hazard	: Pressurised container: May burst if heated.
Hazardous decomposition products in case of fire	: During fire, gases hazardous to health may be formed.

5.3. Advice for firefighters

Firefighting instructions	: Move containers from fire area if it can be done without personal risk. Use standard firefighting procedures and consider the hazards of other involved materials.
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment	: Wear appropriate protective equipment and clothing during clean-up.
Emergency procedures	: Ventilate spillage area. No open flames, no sparks, and no smoking. Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes.

6.1.2. For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures	: Evacuate unnecessary personnel. Ventilate area.

6.2. Environmental precautions

Avoid release to the environment. Avoid the spillage or runoff entering drains, sewers or watercourses.

6.3. Methods and material for containment and cleaning up

For containment	: Collect spillage.
Methods for cleaning up	: Mechanically recover the product. For large spills, confine the spill in a dike and charge it with wet sand or earth for subsequent safe disposal. Following product recovery, flush area with water. Take up small spills with dry chemical absorbent. Clean surface thoroughly to remove residual contamination.
Other information	: Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For disposal of contaminated materials refer to section 13 : "Disposal considerations".

MOTOR STARTER

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Use only outdoors or in a well-ventilated area. Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes. Wear personal protective equipment. Avoid prolonged exposure. Handle in accordance with good industrial hygiene and safety procedures.
Hygiene measures	: Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F. Store locked up. Store in a well-ventilated place. Keep container tightly closed. Store in a well-ventilated place. Keep cool. Keep container closed when not in use.
--------------------	---

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

butane (106-97-8)	
Belgium - Occupational Exposure Limits	
Local name	Butane, tous isomères: n-butane # Butaan, alle isomeren: n-butaan
OEL STEL	2370 mg/m ³
OEL STEL [ppm]	980 ppm
Regulatory reference	Koninklijk besluit/Arrêté royal 11/05/2021
propane (74-98-6)	
Belgium - Occupational Exposure Limits	
Local name	Hydrocarbures aliphatiques sous forme gazeuse: (Alcanes C1-C3) # Alifatische koolwaterstoffen in gas-vorm: Alkanen (C1-C3)
OEL TWA [ppm]	1000 ppm
Regulatory reference	Koninklijk besluit/Arrêté royal 11/05/2021
isobutane (75-28-5)	
Belgium - Occupational Exposure Limits	
Local name	Butane, tous isomères: iso-butane # Butaan, alle isomeren: iso-butaan
OEL STEL	2370 mg/m ³
OEL STEL [ppm]	980 ppm
Regulatory reference	Koninklijk besluit/Arrêté royal 11/05/2021
diethyl ether; ether (60-29-7)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Diethylether
IOEL TWA	308 mg/m ³

MOTOR STARTER

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

diethyl ether; ether (60-29-7)	
IOEL TWA [ppm]	100 ppm
IOEL STEL	616 mg/m ³
IOEL STEL [ppm]	200 ppm
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC
Belgium - Occupational Exposure Limits	
Local name	Oxyde de diéthyle # Di-ethylether
OEL TWA	308 mg/m ³
OEL TWA [ppm]	100 ppm
OEL STEL	616 mg/m ³
OEL STEL [ppm]	200 ppm
Regulatory reference	Koninklijk besluit/Arrêté royal 11/05/2021
acetone; propan-2-one; propanone (67-64-1)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Acetone
IOEL TWA	1210 mg/m ³
IOEL TWA [ppm]	500 ppm
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC
Belgium - Occupational Exposure Limits	
Local name	Acétone # Aceton
OEL TWA	594 mg/m ³
OEL TWA [ppm]	246 ppm
OEL STEL	1187 mg/m ³
OEL STEL [ppm]	492 ppm
Regulatory reference	Koninklijk besluit/Arrêté royal 11/05/2021
pentane (109-66-0)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Pentane
IOEL TWA	3000 mg/m ³
IOEL TWA [ppm]	1000 ppm
Regulatory reference	COMMISSION DIRECTIVE 2006/15/EC
Belgium - Occupational Exposure Limits	
Local name	Pentane, tous isomères # Pentaan, alle isomeren
OEL TWA	1800 mg/m ³
OEL TWA [ppm]	600 ppm
OEL STEL	2250 mg/m ³
OEL STEL [ppm]	750 ppm
Regulatory reference	Koninklijk besluit/Arrêté royal 11/05/2021

8.1.2. Recommended monitoring procedures

No additional information available

MOTOR STARTER

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

diethyl ether; ether (60-29-7)	
DNEL/DMEL (Workers)	
Acute - systemic effects, inhalation	616 mg/m ³
Long-term - systemic effects, dermal	44 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	308 mg/m ³
DNEL/DMEL (General population)	
Long-term - systemic effects, oral	15,6 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	54,5 mg/m ³
Long-term - systemic effects, dermal	15,6 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	2 mg/l
PNEC aqua (marine water)	0,2 mg/l
PNEC aqua (intermittent, freshwater)	1,65 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	9,14 mg/kg dwt
PNEC sediment (marine water)	0,914 mg/kg dwt
PNEC (Soil)	
PNEC soil	0,66 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	4,2 mg/l
acetone; propan-2-one; propanone (67-64-1)	
DNEL/DMEL (Workers)	
Acute - local effects, inhalation	2420 mg/m ³
Long-term - systemic effects, dermal	186 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	1210 mg/m ³
DNEL/DMEL (General population)	
Long-term - systemic effects, oral	62 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	200 mg/m ³
Long-term - systemic effects, dermal	62 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	10,6 mg/l
PNEC aqua (marine water)	1,06 mg/l
PNEC aqua (intermittent, freshwater)	21 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	30,4 mg/kg dwt
PNEC sediment (marine water)	3,04 mg/kg dwt

MOTOR STARTER

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

acetone; propan-2-one; propanone (67-64-1)	
PNEC (Soil)	
PNEC soil	29,5 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	100 mg/l
Hydrocarbons, C6, isoalkanes, <5% n-hexane	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	13964 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	5306 mg/m ³
DNEL/DMEL (General population)	
Long-term - systemic effects, oral	1301 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	1131 mg/m ³
Long-term - systemic effects, dermal	1377 mg/kg bodyweight/day
Distillates (petroleum), hydrotreated middle (64742-46-7)	
DNEL/DMEL (Workers)	
Acute - systemic effects, inhalation	5002,67 mg/m ³
Long-term - systemic effects, dermal	2,91 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	16,4 mg/m ³
DNEL/DMEL (General population)	
Long-term - systemic effects, oral	1,25 mg/kg bodyweight/day
PNEC (Oral)	
PNEC oral (secondary poisoning)	17 g/kg food

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

8.2.2. Personal protection equipment

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection:

Use eye protection according to EN 166. Safety glasses with side shields.

8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing

MOTOR STARTER

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Hand protection:

Wear suitable gloves tested to EN374. 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. Nitrile gloves are recommended.

8.2.2.3. Respiratory protection

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. Approved organic vapour respirator. Filter type: AX

8.2.2.4. Thermal hazards

Thermal hazard protection:

Not expected to present a significant hazard under anticipated conditions of normal use. Wear appropriate thermal protective clothing, when necessary.

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment. Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Colourless.
Appearance	: Propane/butane propelled liquid.
Odour	: characteristic.
Odour threshold	: Not available
Melting point	: Not applicable
Freezing point	: Not available
Boiling point	: Not available
Flammability	: Extremely flammable aerosol.
Explosive properties	: Pressurised container: May burst if heated.
Explosive limits	: Not available
Lower explosion limit	: 1,1 vol %
Upper explosion limit	: 36 vol %
Flash point	: -35 °C (closed cup)
Auto-ignition temperature	: 170 °C
Decomposition temperature	: Not available
pH	: Not applicable
Viscosity, kinematic	: < 15 mm ² /s at 40 °C
Solubility	: insoluble in water.
Partition coefficient n-octanol/water (Log Kow)	: Not applicable
Vapour pressure	: 480 kPa at 20 °C
Vapour pressure at 50°C	: Not available
Density	: 0,613 g/cm ³ at 20 °C
Relative density	: 0,613 at 20 °C
Relative vapour density at 20°C	: Not available
Particle characteristics	: Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

% of flammable ingredients : 50 – 75 %

9.2.2. Other safety characteristics

VOC content : 592,8 g/l

Additional information : For aerosols data for the product without propellant.

MOTOR STARTER

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

SECTION 10: Stability and reactivity

10.1. Reactivity

Extremely flammable aerosol. Pressurised container: May burst if heated.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

Strong oxidizing agents.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Carbon oxides (CO, CO₂).

SECTION 11: Toxicological information

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

Acute toxicity (oral)	: Harmful if swallowed.
Acute toxicity (dermal)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation)	: Not classified (Based on available data, the classification criteria are not met)

MOTOR STARTER	
ATE CLP (oral)	756,048 mg/kg bodyweight
diethyl ether; ether (60-29-7)	
LD50 dermal rabbit	> 20000 mg/kg bodyweight
acetone; propan-2-one; propanone (67-64-1)	
LD50 oral rat	5800 mg/kg bodyweight
LD50 dermal	> 15688 mg/kg bodyweight
LC50 Inhalation - Rat	76 mg/l/4h
Distillates (petroleum), hydrotreated middle (64742-46-7)	
LD50 oral rat	> 5000 mg/kg bodyweight
LD50 dermal rabbit	> 2000 mg/kg bodyweight
pentane (109-66-0)	
LD50 oral rat	> 2000 mg/kg bodyweight
LC50 Inhalation - Rat	> 25,3 mg/l/4h

Skin corrosion/irritation	: Causes skin irritation. pH: Not applicable
Serious eye damage/irritation	: Causes serious eye irritation. pH: Not applicable
Respiratory or skin sensitisation	: Not classified (Based on available data, the classification criteria are not met)
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met)

MOTOR STARTER

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Distillates (petroleum), hydrotreated middle (64742-46-7)	
NOAEL (animal/male, F0/P)	≥ 3000 mg/kg bodyweight
STOT-single exposure	: May cause drowsiness or dizziness.
diethyl ether; ether (60-29-7)	
STOT-single exposure	May cause drowsiness or dizziness.
acetone; propan-2-one; propanone (67-64-1)	
STOT-single exposure	May cause drowsiness or dizziness.
Hydrocarbons, C6, isoalkanes, <5% n-hexane	
STOT-single exposure	May cause drowsiness or dizziness.
pentane (109-66-0)	
STOT-single exposure	May cause drowsiness or dizziness.
STOT-repeated exposure	: Not classified (Based on available data, the classification criteria are not met)
diethyl ether; ether (60-29-7)	
LOAEL (oral, rat, 90 days)	2000 mg/kg bodyweight
NOAEL (oral, rat, 90 days)	500 mg/kg bodyweight
pentane (109-66-0)	
NOAEC (inhalation, rat, vapour, 90 days)	30 mg/l air
Aspiration hazard	: May be fatal if swallowed and enters airways.
MOTOR STARTER	
Vaporizer	Aerosol
Viscosity, kinematic	< 15 mm ² /s at 40 °C
Hydrocarbons, C6, isoalkanes, <5% n-hexane	
Viscosity, kinematic	0,46 mm ² /s
pentane (109-66-0)	
Viscosity, kinematic	0,356 mm ² /s

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Adverse health effects caused by endocrine disrupting properties : The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

11.2.2. Other information

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Toxic to aquatic life with long lasting effects.
Hazardous to the aquatic environment, short-term (acute) : Not classified
Hazardous to the aquatic environment, long-term (chronic) : Toxic to aquatic life with long lasting effects.

MOTOR STARTER

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Not rapidly degradable

diethyl ether; ether (60-29-7)	
LC50 - Fish [1]	2560 mg/l Pimephales promelas
EC50 72h - Algae [1]	> 100 mg/l Desmodesmus subspicatus
LOEC (chronic)	> 100 mg/l Daphnia magna (21 d)
NOEC (chronic)	100 mg/l Daphnia magna (21 d)
acetone; propan-2-one; propanone (67-64-1)	
LC50 - Fish [1]	5540 mg/l
EC50 - Other aquatic organisms [1]	12600 mg/l Daphnia magna (Water flea)
LOEC (chronic)	> 79 mg/l
NOEC (chronic)	≥ 79 mg/l
pentane (109-66-0)	
LC50 - Fish [1]	4,26 mg/l
ErC50 algae	10,7 mg/l

12.2. Persistence and degradability

MOTOR STARTER	
Persistence and degradability	Not established. No data is available on the degradability of this product.

12.3. Bioaccumulative potential

MOTOR STARTER	
Partition coefficient n-octanol/water (Log Kow)	Not applicable
diethyl ether; ether (60-29-7)	
Partition coefficient n-octanol/water (Log Pow)	0,82
acetone; propan-2-one; propanone (67-64-1)	
Partition coefficient n-octanol/water (Log Pow)	-0,24
Distillates (petroleum), hydrotreated middle (64742-46-7)	
Partition coefficient n-octanol/water (Log Pow)	3,9 – 6
pentane (109-66-0)	
Partition coefficient n-octanol/water (Log Pow)	3,45

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

MOTOR STARTER	
Results of PBT assessment	Contains no PBT/vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

MOTOR STARTER

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

12.6. Endocrine disrupting properties

Adverse effects on the environment caused by endocrine disrupting properties : The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %.

12.7. Other adverse effects

Additional information : No other effects known
Global warming potential (GWP) : 3 (Fluorinated greenhouse gases - (EC) No 517/2014)






SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
European List of Waste (LoW) code : According to the European Waste Catalogue (EWC), Waste Codes are not product specific, but application specific Waste codes should be assigned by the user based on the application for which the product was used.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
UN 1950	UN 1950	UN 1950	UN 1950	UN 1950
14.2. UN proper shipping name				
AEROSOLS	AEROSOLS	Aerosols, flammable	AEROSOLS	AEROSOLS
Transport document description				
UN 1950 AEROSOLS, 2.1, (D), ENVIRONMENTALLY HAZARDOUS	UN 1950 AEROSOLS, 2.1, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS	UN 1950 Aerosols, flammable, 2.1, ENVIRONMENTALLY HAZARDOUS	UN 1950 AEROSOLS, 2.1, ENVIRONMENTALLY HAZARDOUS	UN 1950 AEROSOLS, 2.1, ENVIRONMENTALLY HAZARDOUS
14.3. Transport hazard class(es)				
2.1	2.1	2.1	2.1	2.1
				
14.4. Packing group				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards				
Dangerous for the environment: Yes	Dangerous for the environment: Yes Marine pollutant: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes
No supplementary information available				

14.6. Special precautions for user

Overland transport

Classification code (ADR) : 5F

MOTOR STARTER

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Special provisions (ADR)	: 190, 327, 344, 625
Limited quantities (ADR)	: 1I
Excepted quantities (ADR)	: E0
Packing instructions (ADR)	: P207, LP200
Special packing provisions (ADR)	: PP87, RR6, L2
Mixed packing provisions (ADR)	: MP9
Transport category (ADR)	: 2
Special provisions for carriage - Packages (ADR)	: V14
Special provisions for carriage - Loading, unloading and handling (ADR)	: CV9, CV12
Special provisions for carriage - Operation (ADR)	: S2
Tunnel restriction code (ADR)	: D

Transport by sea

Special provisions (IMDG)	: 63, 190, 277, 327, 344, 381, 959
Limited quantities (IMDG)	: SP277
Excepted quantities (IMDG)	: E0
Packing instructions (IMDG)	: P207, LP200
Special packing provisions (IMDG)	: PP87, L2
EmS-No. (Fire)	: F-D
EmS-No. (Spillage)	: S-U
Stowage category (IMDG)	: None
Stowage and handling (IMDG)	: SW1, SW22
Segregation (IMDG)	: SG69

Air transport

PCA Excepted quantities (IATA)	: E0
PCA Limited quantities (IATA)	: Y203
PCA limited quantity max net quantity (IATA)	: 30kgG
PCA packing instructions (IATA)	: 203
PCA max net quantity (IATA)	: 75kg
CAO packing instructions (IATA)	: 203
CAO max net quantity (IATA)	: 150kg
Special provisions (IATA)	: A145, A167, A802
ERG code (IATA)	: 10L

Inland waterway transport

Classification code (ADN)	: 5F
Special provisions (ADN)	: 190, 327, 344, 625
Limited quantities (ADN)	: 1 L
Excepted quantities (ADN)	: E0
Equipment required (ADN)	: PP, EX, A
Ventilation (ADN)	: VE01, VE04
Number of blue cones/lights (ADN)	: 1

Rail transport

Classification code (RID)	: 5F
Special provisions (RID)	: 190, 327, 344, 625
Limited quantities (RID)	: 1L
Excepted quantities (RID)	: E0
Packing instructions (RID)	: P207, LP200
Special packing provisions (RID)	: PP87, RR6, L2
Mixed packing provisions (RID)	: MP9
Transport category (RID)	: 2
Special provisions for carriage – Packages (RID)	: W14
Special provisions for carriage - Loading, unloading and handling (RID)	: CW9, CW12
Colis express (express parcels) (RID)	: CE2
Hazard identification number (RID)	: 23

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

MOTOR STARTER

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

VOC Directive (2004/42)

VOC content : 592,8 g/l

Explosives Precursors Regulation (2019/1148)

Contains substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

ANNEX II REPORTABLE EXPLOSIVES PRECURSORS

List of substances on their own or in mixtures or in substances for which suspicious transactions and significant disappearances and thefts are to be reported to the relevant national contact point within 24 hours.

Name	CAS-No.	Combined Nomenclature code (CN)	Combined Nomenclature code for mixture without constituents which would determine classification under another CN code
Acetone	67-64-1	2914 11 00	ex 3824 99 92

Please see https://ec.europa.eu/home-affairs/system/files/2021-11/list_of_competent_authorities_and_national_contact_points_en.pdf

Drug Precursors Regulation (273/2004)

Contains substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

Name	CN designation	CAS-No.	CN code	Category	Threshold	Annex
Ethyl ether	Diethyl ether	60-29-7	2909 11 00	Category 3		Annex I
Acetone		67-64-1	2914 11 00	Category 3		Annex I

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road

MOTOR STARTER

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Abbreviations and acronyms:	
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disrupting properties

Full text of H- and EUH-statements:	
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aerosol 1	Aerosol, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2

MOTOR STARTER

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Full text of H- and EUH-statements:	
Asp. Tox. 1	Aspiration hazard, Category 1
EUH019	May form explosive peroxides.
EUH066	Repeated exposure may cause skin dryness or cracking.
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Gas 1	Flammable gases, Category 1
Flam. Liq. 1	Flammable liquids, Category 1
Flam. Liq. 2	Flammable liquids, Category 2
H220	Extremely flammable gas.
H222	Extremely flammable aerosol.
H224	Extremely flammable liquid and vapour.
H225	Highly flammable liquid and vapour.
H229	Pressurised container: May burst if heated.
H280	Contains gas under pressure; may explode if heated.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.
Press. Gas (Liq.)	Gases under pressure : Liquefied gas
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Narcosis

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product. 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. The products are governed by Regulation (EC) No 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP); Regulation (EC) No 1907/2006 on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (in each case, as amended and replaced) and other applicable laws. It is an importers or downstream users responsibility to ensure compliance of product they import. An SDS provided in the official language(s) of a country is not a guarantee of compliance in that country.