



## SAFETY DATA SHEET

### Extrablaze IRF 102

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

##### 1.1. Product identifier

<b>Product name</b>	Extrablaze IRF 102
<b>Product number</b>	2011487
<b>REACH registration notes</b>	This material is a mixture. All components have been registered under REACH by the Manufacturer or Supplier.

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

<b>Uses advised against</b>	This product is not recommended for any industrial, professional or consumer use other than the Identified Uses above
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##### 1.3. Details of the supplier of the safety data sheet

###### Supplier

Haltermann Carless UK Ltd  
 Head Office - Cedar Court, Guildford Road, Fetcham, Leatherhead, Surrey KT22 9RX United Kingdom  
 +44(0)1372 360000  
 +44(0)1372 380400

**Contact person** MSDSTeam@h-c-s-group.com

###### Manufacturer

Haltermann Carless UK Ltd  
 Head Office - Cedar Court, Guildford Road, Fetcham, Leatherhead, Surrey KT22 9RX United Kingdom  
 +44(0)1372 360000  
 +44(0)1372 380400

##### 1.4. Emergency telephone number

<b>Emergency telephone</b>	Please contact SHE Department on +44(0) 1255 502372
<b>National emergency telephone number</b>	NCEC (UK) National Chemical Emergency Centre +44 (0) 1235 239670

#### SECTION 2: Hazards identification

##### 2.1. Classification of the substance or mixture

###### Classification (EC 1272/2008)

<b>Physical hazards</b>	Flam. Liq. 2 - H225
<b>Health hazards</b>	Skin Irrit. 2 - H315 Repr. 2 - H361fd STOT SE 3 - H336 Asp. Tox. 1 - H304
<b>Environmental hazards</b>	Aquatic Chronic 2 - H411

**Classification (67/548/EEC or 1999/45/EC)** Xn;R65. Repr. Cat. 3;R62,R63. Xi;R38. F+;R12. N;R51/53. R67.

**Human health** Prolonged or repeated contact with skin may cause irritation, redness and dermatitis.

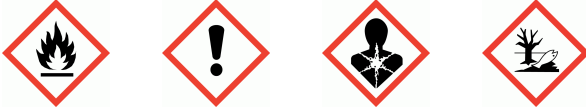
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### Physicochemical

Vapours are heavier than air and may travel along the floor and accumulate in the bottom of containers. Vapours may be ignited by a spark, a hot surface or an ember. Vapours may form explosive mixtures with air.

### 2.2. Label elements

#### Pictogram



#### Signal word

Danger

#### Hazard statements

H225 Highly flammable liquid and vapour.  
 H304 May be fatal if swallowed and enters airways.  
 H315 Causes skin irritation.  
 H336 May cause drowsiness or dizziness.  
 H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.  
 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.  
 P243 Take precautionary measures against static discharge.  
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
 P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.  
 P370+P378 In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish.  
 P501 Dispose of contents/ container in accordance with national regulations.

#### Contains

Gasoline (CLP2), ETBE

#### Supplementary precautionary statements

P201 Obtain special instructions before use.  
 P202 Do not handle until all safety precautions have been read and understood.  
 P240 Ground/ bond container and receiving equipment.  
 P241 Use explosion-proof electrical equipment.  
 P242 Use only non-sparking tools.  
 P261 Avoid breathing vapour/ spray.  
 P264 Wash contaminated skin thoroughly after handling.  
 P271 Use only outdoors or in a well-ventilated area.  
 P273 Avoid release to the environment.  
 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.  
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
 P331 Do NOT induce vomiting.  
 P332+P313 If skin irritation occurs: Get medical advice/ attention.  
 P362+P364 Take off contaminated clothing and wash it before reuse.  
 P391 Collect spillage.  
 P403+P233 Store in a well-ventilated place. Keep container tightly closed.  
 P403+P235 Store in a well-ventilated place. Keep cool.  
 P405 Store locked up.

### 2.3. Other hazards

This substance is not classified as PBT or vPvB according to current EU criteria.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

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<b>Gasoline (CLP2)</b>		<b>&gt;60-100%</b>
CAS number: 86290-81-5	EC number: 289-220-8	REACH registration number: 01-2119471335-39-0007
<b>Classification</b>		
Flam. Liq. 1 - H224		
Skin Irrit. 2 - H315		
Repr. 2 - H361fd		
STOT SE 3 - H336		
Asp. Tox. 1 - H304		
Aquatic Chronic 2 - H411		
<b>Ethyl Tertiary Butyl Ether</b>		<b>&gt;10-&lt;30%</b>
CAS number: 637-92-3	EC number: 211-309-7	REACH registration number: 01-2119452785-29-XXXX
<b>Classification</b>		<b>Classification (67/548/EEC or 1999/45/EC)</b>
Flam. Liq. 2 - H225		F;R11. R67.
STOT SE 3 - H336		

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

**Composition comments** UVCB Substance This gasoline contains the following: benzene <0.1%, n-hexane <3%, and toluene ≥3%

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

<b>General information</b>	Remove affected person from source of contamination.
<b>Inhalation</b>	Remove affected person from source of contamination. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Get medical attention if any discomfort continues.
<b>Ingestion</b>	Do not induce vomiting. Never give anything by mouth to an unconscious person. Do not induce vomiting. Get medical attention immediately.
<b>Skin contact</b>	Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if any discomfort continues.
<b>Eye contact</b>	Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

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

<b>Inhalation</b>	Vapours in high concentrations are anaesthetic. Symptoms following overexposure may include the following: Headache. Fatigue. Dizziness. Central nervous system depression.
<b>Skin contact</b>	Skin irritation. Prolonged contact may cause redness, irritation and dry skin.
<b>Eye contact</b>	No specific symptoms known.

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

**Notes for the doctor** Treat symptomatically.

### SECTION 5: Firefighting measures

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### 5.1. Extinguishing media

**Suitable extinguishing media** Stop flow of material to fire. Extinguish with foam, carbon dioxide, dry powder or water fog.

**Unsuitable extinguishing media** Do not use water jet as an extinguisher, as this will spread the fire.

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

**Specific hazards** Protection against nuisance dust must be used when the airborne concentration exceeds 10 mg/m<sup>3</sup>. Vapours are heavier than air and may spread near ground and travel a considerable distance to a source of ignition and flash back. Vapours may form explosive mixtures with air. Containers can burst violently or explode when heated, due to excessive pressure build-up.

**Hazardous combustion products** Oxides of carbon. 热分解或氧化会产生碳氧化物及释放出有毒气体

### 5.3. Advice for firefighters

**Protective actions during firefighting** Avoid breathing fire gases or vapours. Use water to keep fire exposed containers cool and disperse vapours. Control run-off water by containing and keeping it out of sewers and watercourses.

**Special protective equipment for firefighters** Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

**Personal precautions** Wear protective clothing as described in Section 8 of this safety data sheet. Use suitable respiratory protection if ventilation is inadequate. No smoking, sparks, flames or other sources of ignition near spillage. Avoid inhalation of vapours and contact with skin and eyes. Provide adequate ventilation.

### 6.2. Environmental precautions

**Environmental precautions** Do not discharge into drains or watercourses or onto the ground. Avoid the spillage or runoff entering drains, sewers or watercourses.

### 6.3. Methods and material for containment and cleaning up

**Methods for cleaning up** Eliminate all sources of ignition. No smoking, sparks, flames or other sources of ignition near spillage. Provide adequate ventilation. Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Absorb in vermiculite, dry sand or earth and place into containers. Collect and place in suitable waste disposal containers and seal securely. For waste disposal, see Section 13.

### 6.4. Reference to other sections

**Reference to other sections** For personal protection, see Section 8.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

**Usage precautions** Do not use in confined spaces without adequate ventilation and/or respirator. Eliminate all sources of ignition. Keep away from heat, sparks and open flame. Avoid spilling. Avoid contact with skin and eyes. Avoid inhalation of vapours. Static electricity and formation of sparks must be prevented. Storage tanks and other containers must be earthed.

### 7.2. Conditions for safe storage, including any incompatibilities

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**Storage precautions** Store in tightly-closed, original container in a dry, cool and well-ventilated place. Keep away from heat, sparks and open flame. Store in a demarcated bunded area to prevent release to drains and/or watercourses.

**Storage class** Flammable liquid storage.

### 7.3. Specific end use(s)

**Specific end use(s)** The identified uses for this product are detailed in Section 1.2.

## SECTION 8: Exposure Controls/personal protection

### 8.1. Control parameters

#### Occupational exposure limits

##### Ethyl Tertiary Butyl Ether

Long-term exposure limit (8-hour TWA): ACGIH 5 ppm

ACGIH = American Conference of Governmental Industrial Hygienists.

#### Gasoline (CLP2) (CAS: 86290-81-5)

<b>DNEL</b>	Industry - Inhalation; Short term systemic effects: 1300 mg/m <sup>3</sup> Industry - Inhalation; Short term local effects: 1100 mg/m <sup>3</sup> Industry - Inhalation; Long term local effects: 840 mg/m <sup>3</sup> Consumer - Inhalation; Short term systemic effects: 1200 mg/m <sup>3</sup> Consumer - Inhalation; Short term local effects: 640 mg/m <sup>3</sup> Consumer - Inhalation; Long term local effects: 180 mg/m <sup>3</sup> Industry - Dermal; Long term local effects: 23.4 mg/kg/day
<b>PNEC</b>	No PNEC available

#### Ethyl Tertiary Butyl Ether (CAS: 637-92-3)

<b>DNEL</b>	Industry - Inhalation; Short term systemic effects: 2800 mg/m <sup>3</sup> Industry - Inhalation; Long term systemic effects: 352 mg/m <sup>3</sup> Industry - Dermal; Long term systemic effects: 6767 mg/kg/day Industry - Inhalation; Long term local effects: 105 mg/m <sup>3</sup> Consumer - Inhalation; Short term systemic effects: 1680 mg/m <sup>3</sup> Consumer - Inhalation; Long term systemic effects: 105 mg/m <sup>3</sup> Consumer - Dermal; Long term systemic effects: 4060 mg/kg/day Consumer - Oral; Long term systemic effects: 12.5 mg/kg/day Consumer - Inhalation; Long term local effects: 63 mg/m <sup>3</sup>
<b>PNEC</b>	- Fresh water; 0.51 mg/l - Marine water; 0.017 mg/l - Intermittent release; 1.1 mg/l - Sediment (Freshwater); 28.5 mg/kg - Sediment (Marinewater); 1.45 mg/kg - Soil; 2.41 mg/kg - STP; 12.5 mg/l

### 8.2. Exposure controls

#### Protective equipment



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<b>Appropriate engineering controls</b>	Provide adequate general and local exhaust ventilation. This product must not be handled in a confined space without adequate ventilation.
<b>Eye/face protection</b>	The following protection should be worn: Chemical splash goggles.
<b>Hand protection</b>	The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material.
<b>Other skin and body protection</b>	Wear suitable protective clothing as protection against splashing or contamination.
<b>Hygiene measures</b>	Wash at the end of each work shift and before eating, smoking and using the toilet. Wash promptly with soap and water if skin becomes contaminated. When using do not eat, drink or smoke. Do not smoke in work area.
<b>Respiratory protection</b>	If ventilation is inadequate, suitable respiratory protection must be worn.

### SECTION 9: Physical and Chemical Properties

#### 9.1. Information on basic physical and chemical properties

<b>Appearance</b>	Clear liquid.
<b>Colour</b>	Colourless.
<b>Odour</b>	Pungent.
<b>Melting point</b>	<-60°C
<b>Initial boiling point and range</b>	37-141°C @ 760 mm Hg
<b>Flash point</b>	< -30°C PMCC (Pensky-Martens closed cup).
<b>Upper/lower flammability or explosive limits</b>	Upper flammable/explosive limit: 7.6 Lower flammable/explosive limit: 1.4
<b>Vapour pressure</b>	57 kPa @ 37.8°C
<b>Relative density</b>	0.7451 @ 15°C
<b>Solubility(ies)</b>	No information required. Soluble in the following materials: Organic solvents.
<b>Partition coefficient</b>	No information required.
<b>Auto-ignition temperature</b>	300°C
<b>Viscosity</b>	~0.5 cSt @ 40°C
<b>Explosive properties</b>	Not applicable Low boiling point naphtha's (gasolines) are not considered explosive based on structural and oxygen balance considerations.
<b>Oxidising properties</b>	Does not meet the criteria for classification as oxidising.

#### 9.2. Other information

<b>Particle size</b>	No information required.
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### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

<b>Reactivity</b>	The following materials may react with the product: Strong oxidising agents.
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#### 10.2. Chemical stability

<b>Stability</b>	Stable at normal ambient temperatures and when used as recommended. Avoid the following conditions: Heat, sparks, flames.
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### 10.3. Possibility of hazardous reactions

**Possibility of hazardous reactions** Will not polymerise.

### 10.4. Conditions to avoid

**Conditions to avoid** Avoid heat, flames and other sources of ignition.

### 10.5. Incompatible materials

**Materials to avoid** Strong oxidising agents.

### 10.6. Hazardous decomposition products

**Hazardous decomposition products** Oxides of carbon.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

**Toxicological effects** Information given is applicable to the major ingredient.

#### Acute toxicity - oral

**Notes (oral LD<sub>50</sub>)** OECD 401 Conclusive data but not sufficient for classification.

#### Acute toxicity - dermal

**Notes (dermal LD<sub>50</sub>)** OECD 402 Conclusive data but not sufficient for classification.

#### Acute toxicity - inhalation

**Notes (inhalation LC<sub>50</sub>)** Units mg/m<sup>3</sup> OECD 403 Conclusive data but not sufficient for classification.

#### Skin corrosion/irritation

**Animal data** OECD 404 Irritating.

#### Serious eye damage/irritation

**Serious eye damage/irritation** Not irritating. OECD 405

#### Skin sensitisation

**Skin sensitisation** Buehler test: - Guinea pig: OECD 406 Not sensitising.

#### Germ cell mutagenicity

**Genotoxicity - in vitro** Gene mutation:: Negative. Method equivalent or similar to OECD 471 This substance has no evidence of mutagenic properties.

#### **Genotoxicity - in vivo**

Chromosome aberration: Negative. OECD Guideline 475 This substance has no evidence of mutagenic properties.

#### Carcinogenicity

**Carcinogenicity** NOAEL ~10000 mg/m<sup>3</sup>, Inhalation, Rat Method: OECD 453 NOAEL 0.5 , Dermal, Mouse Method equivalent to OECD 451 Units ml

#### **Target organ for carcinogenicity**

Kidneys Liver

#### Reproductive toxicity

**Reproductive toxicity - fertility** Two-generation study - NOAEC ≥20000 mg/m<sup>3</sup>, Inhalation, Rat F1 Method OECD 416 It should be noted that, although the data do not support classification of gasoline per se for reproductive toxicity potential according to EU regulation (EC no. 1272/2008), there is a regulatory requirement to classify as reprotoxic gasoline and naphtha streams containing >3% toluene and / or n-hexane

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**Reproductive toxicity - development** Developmental toxicity: - NOAEL: 23900 mg/m<sup>3</sup>, Inhalation, Rat Method OECD 414 It should be noted that, although the data do not support classification of gasoline per se for reproductive toxicity potential according to EU regulation (EC no. 1272/2008), there is a regulatory requirement to classify as reprotoxic gasoline and naphtha streams containing >3% toluene and / or n-hexane

### Specific target organ toxicity - repeated exposure

**STOT - repeated exposure** NOAEL ~3750 mg/kg, Dermal, Method: OECD TG 410 under occlusive conditions

### Aspiration hazard

**Aspiration hazard** Kinematic viscosity ≤ 20.5 mm<sup>2</sup>/s. May be fatal if swallowed and enters airways. Based on physico-chemical properties of the materials

**Inhalation** Vapours in high concentrations are anaesthetic. Symptoms following overexposure may include the following: Headache. Fatigue. Dizziness. Central nervous system depression.

**Ingestion** Harmful: may cause lung damage if swallowed. Pneumonia may be the result if vomited material containing solvents reaches the lungs.

**Skin contact** Irritating to skin. Not a skin sensitiser.

**Eye contact** No specific health hazards known.

**Route of entry** Inhalation Ingestion. Skin and/or eye contact

## SECTION 12: Ecological Information

**Ecotoxicity** The product contains substances which are toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment. Information given is applicable to the major ingredient.

### 12.1. Toxicity

**Acute toxicity - fish** LC<sub>50</sub>, 96 hours: 10 mg/l, Onchorhynchus mykiss (Rainbow trout)  
OECD 203

**Acute toxicity - aquatic invertebrates** EC<sub>50</sub>, 48 hours: 4.5 mg/l, Daphnia magna  
OECD 202

**Acute toxicity - aquatic plants** EC<sub>50</sub>, 72 hours: 3.1 mg/l, Selenastrum capricornutum  
OECD 201

**Acute toxicity - microorganisms** , 72 hours: 15.41 mg/l,  
LL50  
Tetrahymena pyriformis  
QSAR modeled data

**Acute toxicity - terrestrial** Scientifically unjustified.

**Chronic toxicity - fish early life stage** , 21 days: 2.6 mg/l,  
NOELR  
Read across from Daphnia Magna reproduction test  
OECD 211

**Chronic toxicity - aquatic invertebrates** , 21 days: 2.6 mg/l, Daphnia magna  
NOELR  
OECD 211

### 12.2. Persistence and degradability

**Persistence and degradability** This substance is inherently biodegradable



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<b>Phototransformation</b>	No information required.
<b>Stability (hydrolysis)</b>	Scientifically unjustified.
<b>Biodegradation</b>	Water - Degradation (%) 94: 25 days Inherently biodegradable.

### 12.3. Bioaccumulative potential

<b>Partition coefficient</b>	No information required.
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### 12.4. Mobility in soil

<b>Adsorption/desorption coefficient</b>	Scientifically unjustified.
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<b>Henry's law constant</b>	Not applicable.
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<b>Surface tension</b>	No information required. In line with REACH Annex VII, data on surface tension is not required, as based on structural considerations, surface activity is not expected or predicted, and surface activity is not a desired property of the material.
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### 12.5. Results of PBT and vPvB assessment

<b>Results of PBT and vPvB assessment</b>	This substance is not classified as PBT or vPvB according to current EU criteria.
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### 12.6. Other adverse effects

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

<b>General information</b>	Waste is classified as hazardous waste. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.
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## SECTION 14: Transport information

### 14.1. UN number

<b>UN No. (ADR/RID)</b>	1203
<b>UN No. (IMDG)</b>	1203
<b>UN No. (ICAO)</b>	1203
<b>UN No. (ADN)</b>	1203

### 14.2. UN proper shipping name

<b>Proper shipping name (ADR/RID)</b>	MOTOR SPIRIT or GASOLINE or PETROL
<b>Proper shipping name (IMDG)</b>	MOTOR SPIRIT or GASOLINE or PETROL
<b>Proper shipping name (ICAO)</b>	MOTOR SPIRIT or GASOLINE or PETROL
<b>Proper shipping name (ADN)</b>	MOTOR SPIRIT or GASOLINE or PETROL

### 14.3. Transport hazard class(es)

<b>ADR/RID class</b>	3
<b>ADR/RID classification code</b>	F1
<b>ADR/RID label</b>	3
<b>IMDG class</b>	3

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ICAO class/division 3

ADN class 3

### Transport labels



### 14.4. Packing group

ADR/RID packing group II

IMDG packing group II

ICAO packing group II

ADN packing group II

### 14.5. Environmental hazards

#### Environmentally hazardous substance/marine pollutant



### 14.6. Special precautions for user

EmS F-E, S-E

ADR transport category 2

Emergency Action Code 3YE

Hazard Identification Number (ADR/RID) 33

Tunnel restriction code (D/E)

### 14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

## SECTION 15: Regulatory information

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

**National regulations** Health and Safety at Work etc. Act 1974 (as amended).  
The Control of Substances Hazardous to Health Regulations 2002 (SI 2002 No. 2677) (as amended).  
Control of Substances Hazardous to Health Regulations 2002 (as amended).

**EU legislation** Dangerous Substances Directive 67/548/EEC.  
Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).  
Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

## SECTION 16: Other information

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<b>Revision comments</b>	New issue in new format
<b>Issued by</b>	HCS Group Technical Team
<b>Revision date</b>	01/04/2016
<b>Revision</b>	3
<b>Supersedes date</b>	01/07/2015
<b>SDS number</b>	21372
<b>SDS status</b>	Approved.
<b>Risk phrases in full</b>	R12 Extremely flammable. R38 Irritating to skin. R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. R62 Possible risk of impaired fertility. R63 Possible risk of harm to the unborn child. R65 Harmful: may cause lung damage if swallowed. R67 Vapours may cause drowsiness and dizziness.
<b>Hazard statements in full</b>	H224 Extremely flammable liquid and vapour. H225 Highly flammable liquid and vapour. H304 May be fatal if swallowed and enters airways. H315 Causes skin irritation. H336 May cause drowsiness or dizziness. H361fd Suspected of damaging fertility. Suspected of damaging the unborn child. H411 Toxic to aquatic life with long lasting effects.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.