



MATERIAL SAFETY DATA SHEET

08/11/2011

TURPENTINE SUBSTITUTE

SECTION 1: IDENTIFICATION OF SUBSTANCE/PREPARATION & COMPANY

1.1 Product Identifier

Product/Material: TURPENTINE SUBSTITUTE
REACH Registration Name: Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%).
REACH registration No: 01-2119458049-33
Pure Substance/mixture: Substance

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

Identified uses: Manufacture of substance, Distribution of substance, Formulation & (re)packing of substances and mixtures, Uses in Coatings, Use in Cleaning Agents, Lubricant, Metalworking fluid, Use as a fuel, Lamp oil, Barbecue lighter, Functional Fluids, Road and construction applications, Laboratory activities, Rubber production and processing, Water treatment chemical, Polymer processing.

1.3 Details of the supplier of the safety data sheet

Supplier: R.K. & J. Jones Limited
Address: Southery Road, Feltwell, Thetford, Norfolk, IP26 4EH, UK.
Telephone: 01842 828101
Fax: 01842 828171
Emergency Number: 01223 968282
E-mail Address: sales@birdbrand.co.uk

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

REGULATION (EC) No 1272/2008

For the full text of the H-Statements mentioned in this Section, see Section 2.2.

Classification

Flammable liquids - Category 3 - H226
Aspiration toxicity - Category 1 - H304
Specific target organ systemic toxicity (single exposure) - Category 3 - H336
Chronic aquatic toxicity - Category 2 - H411

DIRECTIVE 67/548/EEC or 1999/45/EC

For the full text of the R-phrases mentioned in this Section, see Section 16

Symbol(s)

Xn - Harmful
N - Dangerous for the environment

Classification

R10 - Xn; R65 - R66 - R67 - N; R51-53

2.2. Label elements

Labelled according to: REGULATION (EC) No 1272/2008

Contains Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)

EC-No 919-446-0

Hazard pictograms**Signal Word**

DANGER

Hazard Statements

H226 - Flammable liquid and vapour

H304 - May be fatal if swallowed and enters airways

H336 - May cause drowsiness or dizziness

H411 - Toxic to aquatic life with long lasting effects

Precautionary Statements

P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking

P280 - Wear protective gloves and eye/face protection

P261 - Avoid breathing dust/fume/gas/mist/vapours/spray

P271 - Use only outdoors or in a well-ventilated area

P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician

P331 - Do NOT induce vomiting

P273 - Avoid release to the environment

Supplemental Hazard Statements

EUH066 - Repeated exposure may cause skin dryness or cracking

2.3. Other hazards

Physical-Chemical Properties Vapours may form explosive mixtures with air.
Vapours are heavier than air and may spread near ground level to sources of ignition.

Properties Affecting Health Vapours inhaled in strong concentration have a narcotic effect on the central nervous system.

Environmental properties Should not be released into the environment.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**3.1. Substance**

Chemical nature A complex and variable combination of paraffinic, cyclic and aromatic hydrocarbons having a carbon number range predominantly of C9 to C12 and boiling in the range of approximately 135°C to 220°C.
The aromatic content is between 2% and 25%.

Chemical Name	EC-No	REACH Registration No:	CAS-No	Weight %	Classification (Dir. 67/548)	Classification (Reg. 1272/2008)
Hydrocarbons, C9-C12, n-alkanes, cyclics, aromatics (2-25%)	-	01/2119458049-33	^	100	R10;R65;R51-53	Flam.Liquid (H226) Asp. Tox. 1 (H304) STOT SE 3 (H336) Aquatic Chronic 2 (H411)

Additional information

The EC substance definition and related classification & labelling has been developed in the framework of the Regulation (EC) No 1907/2006 (REACH). For information about the related CAS number see section 15 of this MSDS Total aromatic content : 15-20 % Contains

Chemical Name	EC-No	REACH Registration No:	CAS-No	Weight %	Classification (Dir. 67/548)	Classification (Reg. 1272/2008)
Xylenes (o-,m-,p-isomers)	215-535-7	No data available	1330-20-7	0-3	R10 Xn; R20/21 Xi; R38	Flam. Liq. 3 (H226) Acute Tox. 4 (H312) Acute Tox. 4 (H332) Skin Irrit. 2 (H315)
1,3,5-Trimethylbenzene	203-604-4	No data available	180-67-8	0-1	R10 Xi; R37 N; R51-53	Flam. Liq. 3 (H226) STOT SE 3 (H335) Aquatic Chronic 2 (H411)
Ethyl benzene	202-849-4	No data available	100-41-4	0-1	F; R11 Xn; R20	Flam. Liq. 2 (H225) Acute Tox. 4 (H332)

For the full text of the R-phrases mentioned in this Section, see Section 16

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: FIRST AID MEASURES

4.1. Description of first-aid measures

General advice	IN CASE OF SERIOUS OR PERSISTENT CONDITIONS, CALL A DOCTOR OR EMERGENCY MEDICAL CARE.
Eye contact	Rinse thoroughly with plenty of water, also under the eyelids. Keep eye wide open while rinsing.
Skin contact	Remove contaminated clothing and shoes. Wash off with soap and water.
Inhalation	In case of exposure to intense concentrations of vapours, fumes or spray, transport the person away from the contaminated zone, keep warm and allow to rest.
Ingestion	If swallowed, do not induce vomiting - seek medical advice. Risk of product entering the lungs on vomiting after ingestion. In this case, the casualty should be sent immediately to hospital.
Protection of First-Aiders	Use personal protective equipment.

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

Eye contact	Burning feeling and temporary redness.
Skin contact	Prolonged or repeated contact may dry skin and cause irritation.
Inhalation	Vapours inhaled in strong concentration have a narcotic effect on the central nervous system. Irritation of the respiratory tract due to excess fume, Causes headache, drowsiness or other effects to the central nervous system, loss of consciousness.
Ingestion	Nausea, Vomiting, Abdominal pain. Harmful: If swallowed accidentally, the product may enter the lungs due to its low viscosity and lead to the rapid development of very serious inhalation pulmonary lesions (medical survey during 48 hours).

4.3. Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician	Treat symptomatically.
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SECTION 5 : FIRE FIGHTING MEASURES**5.1. Extinguishing media**

Suitable Extinguishing Media	Foam. Dry powder. Carbon dioxide (CO ₂). Water spray.
Unsuitable Extinguishing Media	Do not use a solid water stream as it may scatter and spread fire.

5.2. Special hazards arising from the substance or mixture

Special Hazard	Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot. These may be highly dangerous if inhaled in confined spaces or at high concentration.
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5.3. Advise for Fire-fighters

Special protective equipment for Fire-fighters	In case of a large fire or in confined or poorly ventilated spaces, wear full fire resistant protective clothing and self contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Other information	Cool containers / tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6: ACCIDENTAL RELEASE MEASURES**6.1. Personal precautions, protective equipment and emergency procedures**

General Information	Use personal protective equipment. Evacuate non-essential personnel. Ensure adequate ventilation, especially in confined areas. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Do not touch or walk through spilled material.
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6.2. Environmental precautions

General Information	Prevent further leakage or spillage if safe to do so. Dike to collect large liquid spills. The product should not be allowed to enter drains, water courses or the soil. Local authorities should be advised if significant spillages cannot be contained.
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6.3. Methods and materials for containment and cleaning up

Methods for cleaning up	Use non-sparking hand tools and explosion proof electrical equipment. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Following product recovery, flush area with water.
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6.4. Reference to other sections

Personal Protective Equipment	See Section 8 for more detail
Waste treatment	See section 13
Other information	Remove all sources of ignition. Stop all work that requires a naked flame, stop all vehicles, stop all machines and equipment that may cause sparks or flames.

SECTION 7 : HANDLING AND STORAGE**7.1. Precautions for safe handling**

Advice on safe handling	For personal protection see section 8. Use only in well-ventilated areas. Do not breathe vapours or spray mist. Avoid contact with skin, eyes and clothing.
Technical measures	Ensure adequate ventilation. Do not spray at high pressure (> 3 bar) . WHILE MOVING THE PRODUCT:.. To avoid ignition of vapours by static electricity discharge, all metal parts of the equipment must be grounded. Do not allow splash loading and ensure that the product is poured slowly, particularly at the beginning of the operation.
Prevention of fire and explosion	OPERATE ONLY ON COLD AND DEGASSED TANKS IN VENTILATED PREMISES (TO AVOID RISK OF EXPLOSION). Handle away from any source of ignition (open flame and sparks) and heat (hot manifolds or casings). Do not smoke. Use explosion proof electrical equipment. Take precautionary measures against static discharges. Do not use compressed air for filling, discharging or handling. Design installations (machinery and equipment) to prevent burning product from spreading (tanks, retention systems, interceptors (traps) in drainage systems).
Hygiene measures	Ensure the application of strict rules of hygiene by the personnel exposed to the risk of contact with the product. When using, do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended. Do not dry hands with rags that have been contaminated with product. Do not use abrasives, solvents or fuels. Wash hands before breaks and at the end of workday.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures/Storage Conditions:	Design the installations in order to avoid accidental emissions of product (due to seal breakage, for example) onto hot casings or electrical contacts. Storage installations should be designed with adequate bunds so as to prevent ground or water pollution in case of leaks or spills. Use explosion proof electrical equipment. Keep in a bunded area. Keep in a dry, cool and well-ventilated place. Keep away from open flames, hot surfaces and sources of ignition. Ground/bond containers, tanks and transfer/receiving equipment. Store at room temperature. Keep containers tightly closed and properly labelled.
Materials to Avoid	Strong acids. Oxidizing agents.
Packaging material	Keep only in the original container or in a suitable container for this kind of product. steel . Stainless steel.

SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1. Control parameters**

Exposure limits	Ingredients with workplace control parameters
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Chemical Name	European Union
Xylenes (o-,m-,p- isomers) 1330-20-7	TWA 50 ppm TWA 221 mg/m ³ STEL 100ppm STEL 442 mg/m ³ S*
1,3,5-Trimethylbenzene 108-67-8	TWA 20 ppm TWA 100 mg/m ³
Ethyl benzene 100-41-4	TWA 100ppm TWA 442 mg/m ³ STEL 200ppm STEL 884 mg/m ³ S*

Legend

See section 16

Advisory OELCEFIC-HSPA : 350 mg/m³**DNEL Worker (Industrial/Professional)**

Chemical Name	Short term, systemic effects	Short term, local effects	Long Term, systemic effects	Long term, local effects
Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25% [^])			44 mg/kg bw/day (demal) 330 mg/m ³ /8h (inhalation)	

DNEL General population

Chemical Name	Short term, systemic effects	Short term, local effects	Long Term, systemic effects	Long term, local effects
Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25% [^])			26 mg/kg bw/day (demal) 71 mg/m ³ /24h (inhalation) 26 mg/kg bw/day (oral)	

8.2. Exposure controls**Occupational Exposure Controls**

Engineering Measures When working in confined spaces (tanks, containers, etc.), ensure that there is a supply of air suitable for breathing and wear the recommended equipment. Apply technical measures to comply with the occupational exposure limits.

Personal Protective Equipment

General Information Protective engineering solutions should be implemented and in use before personal protective equipment is considered. These recommendations apply to the product as supplied. If the product is used in mixtures, it is recommended that you contact the appropriate protective equipment suppliers.

Respiratory protection In the case of vapour formation use a respirator with filter model :. Type A. In case of vapours and aerosol formation:.. Respirator with combination filter for vapour/particulate, Type A/P2. Warning ! filters have a limited use duration.

Eye Protection If splashes are likely to occur, wear:.. Safety glasses with side-shields.

Skin and body protection Wear suitable protective clothing. Protective shoes or boots.

Hand Protection Hydrocarbon-proof gloves for aromatic hydrocarbons.

Repeated or prolonged exposure			
Glove Material	Glove Thickness	Break through time	Remarks
Nitrile rubber	>0.45mm	>480 min	EN374
PVA		>480 min	EN374

In case of contact through splashing			
Glove Material	Glove Thickness	Break through time	Remarks
Chloroprene	>0.7mm	>60min	EN 374
Nitrile rubber	>0.3mm	>60min	EN 374

Environmental exposure controls

General Information Do not allow material to contaminate ground water system.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES.**9.1. Information on basic physical and chemical properties**

Colour		Colourless	
Physical State @20°C		Liquid	
Odour		Characteristic	
<u>Property</u>	<u>Values</u>	<u>Remarks</u>	<u>Method</u>
pH		Not applicable	
Melting point/range		Not applicable	
Boiling point/boiling range	-76 °F 150 -200 °C 302 -401 °F		ISO 3405 ISO 3405
Flash point	>= 38 °C >= 106 °F		ISO 2719 ISO 2719.
Evaporation rate	65	EtEt=1	DIN 53170
Flammability Limits in Air			
Upper	7 %		
Lower	0.7 %		
Vapour Pressure	< 5 hPa	@ 20 °C	
Vapour density		No information available	
Density	774 -795 kg/m3	@ 15 °C	ISO 12185
Water solubility		Not applicable	
Solubility in other solvents		No information available	
logPow		Not applicable	
Autoignition temperature	> 230 °C > 446 °F		ASTM E 659-78 ASTM E 659-78
Viscosity, kinematic	0.95 mm2/s	@ 40 °C	ASTM D 445
Explosive properties	Not considered explosive based on chemical structure and oxygen balance considerations		
Oxidizing Properties	This product is not considered oxidising based on chemical structure considerations.		
Possibility of hazardous reactions	Not applicable		

9.2. Other information

Surface tension	0.0245 N/m	@ 25 °C	EN 14370
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SECTION 10 : STABILITY AND REACTIVITY**10.1. Reactivity****10.2. Chemical stability**

Stability Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

Hazardous Reactions None under normal processing.

10.4. Conditions to Avoid

Conditions to Avoid Heat, flames and sparks. Take precautionary measures against static discharges.

10.5. Incompatible Materials

Materials to Avoid Strong acids. Oxidizing agents.

10.6. Hazardous Decomposition Products

Hazardous Decomposition Products Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot.

SECTION 11: TOXICOLOGICAL INFORMATION**11.1. Information on toxicological effects****Acute toxicity Local effects, Product Information**

Skin contact Prolonged or repeated contact may dry skin and cause irritation.

Eye contact Not classified. Symptoms :. Burning feeling and temporary redness

Inhalation Vapours inhaled in strong concentration have a narcotic effect on the central nervous system. Irritation of the respiratory tract due to excess fume, Causes headache, drowsiness or other effects to the central nervous system, loss of consciousness.

Ingestion Symptoms :. Nausea, Vomiting, Abdominal pain.
Harmful: If swallowed accidentally, the product may enter the lungs due to its low viscosity and lead to the rapid development of very serious inhalation pulmonary lesions (medical survey during 48 hours).

Acute toxicity Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Hydrocarbon, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)	LD50 > 15000 mg/kg bw (rat – OECD 401)	LD50 (24h) > 3400 mg/kg bw (rat)	LC50 (4h) > 13100mg/m3 (vapour) (rat – OECD 403)

Sensitization

Sensitization Not classified as a sensitizer.

Specific Effects

Carcinogenicity This product is not classified carcinogenic.

Mutagenicity The mutagenic potential of the substance has been extensively studied in a range of in-vivo and in-vitro assays.

Germ Cell Mutagenicity Genetic toxicity : negative.

Reproductive toxicity No information available.

Developmental Toxicity Results of guideline developmental toxicity studies on the substance and OECD developmental toxicity screening studies showed no evidence of developmental toxicity in rats.

Repeated Dose Toxicity

Subchronic toxicity No information available.

Target Organ Effects (STOT)

Target Organ Effects (STOT) Central nervous system.

Specific target organ systemic toxicity (single exposure) Vapours may cause drowsiness and dizziness.

Specific target organ systemic toxicity (repeated exposure) No known effect based on information supplied.

Aspiration toxicity The fluid can enter the lungs and cause damage (chemical pneumonitis, potentially fatal).

Other information

Other adverse effects Frequent or prolonged skin contact destroys the lipoacid cutaneous layer and may cause dermatitis.

SECTION 12 : ECOLOGICAL INFORMATION**12.1. Toxicity**

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Acute aquatic toxicity Product Information

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates	Toxicity to fish	Toxicity to microorganisms
Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%) ^	ErL50 (72h) = 4.1 mg/l (Pseudokirchneriella subcapitata – OECD 201) ErL50 (72h) = 4.6-10mg/l (Pseudokirchneriella subcapitata – OECD 201) NOELR (72h) = 0.76 mg/l (Pseudokirchneriella subcapitata – growth rate- OECD 201) NOELR (72h) = 0.22 mg/l (Pseudokirchneriella subcapitata - biomass – OECD 201)	EL50 (48h) = 10-22 mg/l (Daphnia magna – OECD 202)	LL50 (96h) = 10-30mg/l (Oncorhynchus mykiss – OECD 203)	

Chronic aquatic toxicity Product Information**Chronic Aquatic toxicity Component Information**

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates	Toxicity to fish	Toxicity to micro organisms
Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%) ^		NOELR (21d) = 0.28 mg/l (daphnia magna – OCDE 211)	NOELR (28d) = 0.13 mg/l (oncorhynchus mykiss QSAR Petrotox)	

Effects on terrestrial organisms

No information available.

12.2. Persistence and degradability

General Information Readily biodegradable (75% after 28 days).

Biodegradation						
Type:	Method	Sampling time	Specific effects	Values	Unit	Biodegradability
	OECD 301 F	28 days		75	%	Readily biodegradable

12.3. Bioaccumulative potential

Product Information Measured experimental data on hydrocarbon UVCB substances are not meaningful, since each of the constituents is likely to behave differently.

logPow Component Information Not applicable

12.4. Mobility in Soil

Soil Substance is a UVCB. Standard tests for this endpoint are not appropriate.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment This substance is considered not to be PBT and vPvB.

12.6. Other adverse effects

General Information No information available.

SECTION 13: DISPOSAL CONSIDERATIONS**13.1. Waste treatment methods**

Waste from Residues/Unused Products Dispose of in accordance with the European Directives on waste and hazardous waste.

Contaminated packaging Empty containers may contain flammable or explosive vapours. Empty containers should be taken to an approved waste handling site for recycling or disposal.

EWC Waste Disposal No. According to the European Waste Catalogue, 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**ADR/RID**

UN/ID No	UN 1300
Proper shipping name	Turpentine substitute
Proper shipping name	TURPENTINE SUBSTITUTE
Hazard class	3
Packing Group	III
ADR/RID-Labels	3
Environmental hazard	Yes
Classification Code	F1
Tunnel Restriction Code	(D/E)
ADR Hazard Id (Kemmler No.)	30
Description	UN 1300, TURPENTINE SUBSTITUTE, 3, PG III, (D/E)
Excepted Quantity	E1
Limited quantity	LQ7
Hazchem Code	3Y

IMDG/IMO

UN/ID No	UN 1300
Proper shipping name	Turpentine substitute
Hazard class	3
Packing Group	III
Marine Pollutant	P
EmS No.	F-E, S-E

Description	UN 1300, TURPENTINE SUBSTITUTE, 3, PG III, (40°C c.c.)
Excepted Quantity	E1
Limited quantity	5 L

ICAO/IATA

UN/ID No	UN 1300
Proper shipping name	Turpentine substitute
Hazard class	3
Packing Group	III
ERG Code	3L
Special Provisions	A3
Description	UN 1300, TURPENTINE SUBSTITUTE, 3, PG III
Excepted Quantity	E1
Limited quantity	10 L

ADN

UN/ID No	UN 1300
Proper shipping name	Turpentine substitute
Proper shipping name	TURPENTINE SUBSTITUTE
Hazard class	3
Hazard Labels	3
Packing Group	III
Environmental hazard	Yes
Classification Code	F1
Description	UN 1300, TURPENTINE SUBSTITUTE, 3, PG III
Excepted Quantity	E1
Limited quantity	LQ7
Ventilation	VE01

SECTION 15 : REGULATORY INFORMATION**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****European Union****REACH**

The EC substance definition is included in the CAS related number description for global inventory entries

Other regulations

Directive 2004/42/EC on the limitation of emissions of volatile organic compounds

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

International Inventories

Related CAS	64742-82-1
EINECS/ELINCS	Complies
TSCA	Complies
DSL	Complies
ENCS	Complies
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies
NZIoC	Complies

Legend

EINECS/ELINCS -	European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
TSCA -	United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDL -	Canadian Domestic Substances List/Non-Domestic Substances List

ENCS -	Japan Existing and New Chemical Substances
IECSC -	China Inventory of Existing Chemical Substances
KECL -	Korean Existing and Evaluated Chemical Substances
PICCS -	Philippines Inventory of Chemicals and Chemical Substances
AICS -	Australian Inventory of Chemical Substances
NZIoC -	New Zealand Inventory of Chemicals

15.2. Chemical Safety Assessment

Chemical Safety Assessment A Chemical Safety Assessment has been carried out for this substance

SECTION 16 : OTHER HEALTH AND SAFETY INFORMATION

Full text of R-phrases referred to under sections 2 and 3

R10 - Flammable
 R11 - Highly flammable
 R37 - Irritating to respiratory system
 R38 - Irritating to skin
 R65 - Harmful: may cause lung damage if swallowed
 R66 - Repeated exposure may cause skin dryness or cracking
 R67 - Vapours may cause drowsiness and dizziness
 R20/21 - Harmful by inhalation and in contact with skin
 R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

Full text of H-Statements referred to under section 2 and 3

H225 - Highly flammable liquid and vapour
 H226 - Flammable liquid and vapour
 H304 - May be fatal if swallowed and enters airways
 H312 - Harmful in contact with skin
 H315 - Causes skin irritation
 H332 - Harmful if inhaled
 H335 - May cause respiratory irritation
 H336 - May cause drowsiness or dizziness
 H411 - Toxic to aquatic life with long lasting effects

Abbreviations, acronyms

bw = body weight
 bw/day = body weight/day

Legend Section 8

+	Sensitizer	*	Skin designation
**	Hazard Designation	C:	Carcinogen
M:	Mutagen	R:	Toxic to reproduction

This safety data sheet serves to complete but not to replace the technical product sheets. The information contained herein is given in good faith and is accurate to the best of knowledge at the date indicated above. It is understood by the user that any use of the product for purposes other than those for which it was designed entails potential risk. The information given herein in no way dispenses the user from knowing and applying all provisions regulating his activity. The user bears sole liability for the precautions required when using the product. The regulatory texts indicated herein are intended to aid the user to fulfil his obligations. This list is not to be considered complete and exhaustive. It is the user's responsibility to ensure that he is subject to no other obligations than those mentioned.

Revision Date: **2610/2011 – 54442 – BB Rev 1**
This safety data sheet complies with the requirements of Regulation (EC) No 1907/2006