

SAFETY DATA SHEET

TETRAHYDROFURAN LRG

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

1.1. Product identifier

Product name	TETRAHYDROFURAN LRG
Product number	2519
REACH registration number	01-2119444314-46-0000
CAS number	109-99-9
EU index number	603-025-00-0
EC number	203-726-8

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

Identified uses	Laboratory chemicals Cleaning agent. Used in coatings. Intermediate
Uses advised against	Processes involving incompatible materials. Processes that would lead to over-exposure of the operators. Processes involving sources of ignition. No identified uses are advised against on the ECHA website.

1.3. Details of the supplier of the safety data sheet

Supplier

Reagent Chemical Services
18 Aston Fields Road
Whitehouse Industrial Estate
Runcorn
Cheshire WA7 3DL

T: 01928 716903 (08.30 - 17.00)
F: 01928 716425
E: info@reagent.co.uk

1.4. Emergency telephone number

Emergency telephone	OHES Environmental Ltd 24-7 Tel. 0333 333 9939 (24 hour)
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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards	Flam. Liq. 2 - H225
Health hazards	Eye Irrit. 2 - H319 STOT SE 3 - H335
Environmental hazards	Not Classified

Classification (67/548/EEC or 1999/45/EC) F;R11,R19 Xi;R36/37

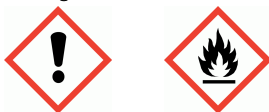
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Human health	The product can cause irritation to the eyes, skin and respiratory system. Central nervous system depression
Environmental	The substance is not classed as environmentally hazardous. The substance is miscible with water and will spread in water systems.
Physicochemical	The product is highly flammable. Vapours may form explosive mixtures with air. May form explosive peroxides.

2.2. Label elements

EC number 203-726-8

Pictogram



Signal word Danger

Hazard statements
 H225 Highly flammable liquid and vapour.
 H319 Causes serious eye irritation.
 H335 May cause respiratory irritation.

Precautionary statements
 P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P233 Keep container tightly closed.
 P243 Take precautionary measures against static discharge.
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
 P501 Dispose of contents / container to hazardous waste depot.

Supplementary precautionary statements
 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.
 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.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P312 Call a POISON CENTER/ doctor if you feel unwell.
 P313 Get medical advice/ attention.
 P337 If eye irritation persists:
 P370+P378 In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish.
 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

3.1. Substances

Product name TETRAHYDROFURAN LRG
REACH registration number 01-2119444314-46-0000

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EU index number	603-025-00-0
CAS number	109-99-9
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SECTION 4: First aid measures

4.1. Description of first aid measures

General information	CAUTION! First aid personnel must be aware of own risk during rescue! Always consider any dangers in the vicinity before approaching to treat the casualty. First aid personnel must protect themselves with all necessary personal protective equipment during the assistance of casualties. Isolate all sources of ignition when treating casualties - DO NOT SMOKE. When breathing is difficult, properly trained personnel may assist the casualty by administering oxygen. Check airway for any blockages. Place unconscious person on the side in the recovery position and ensure breathing can take place. Never give anything by mouth to an unconscious person. If breathing has stopped perform CPR. If medical assistance is needed take as much detail as possible about the incident and hazardous materials involved with the casualty.
Inhalation	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.
Ingestion	Do not induce vomiting. Rinse mouth thoroughly with water Get medical attention.
Skin contact	Remove contaminated clothing and wash before re - use. Rinse immediately with plenty of water. If irritation or discomfort occurs obtain medical attention
Eye contact	Promptly wash eyes with plenty of water or eye wash solution while lifting the eyelids.If possible remove any contact lenses and continue to wash. Get medical attention.

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

General information	The severity of the symptoms described will vary dependent on the concentration and the length of exposure. Risk of aspiration. Cardiovascular effects and a reduced white blood count may occur. May damage kidneys and liver.
Inhalation	Acute: Irritation of the respiratory system. Coughing. Difficulty in breathing. Headache. Central nervous system depression. Delayed: Can cause pulmonary edemas.
Ingestion	Headache. Irritation of the digestive tract. Nausea, vomiting, dizziness, collapse.
Skin contact	Acute: May cause irritation. Delayed: Dryness and skin cracking.
Eye contact	Acute: Causes irritation of the eyes. Delayed: Possible corneal damage.

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

Notes for the doctor	Have facilities in place to wash skin and eyes in case of exposure. Cases of ingestion should receive prompt medical attention.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Small fires: Extinguish with alcohol-resistant foam, carbon dioxide or dry powder. Large fires: Dry powder, foam or water spray/mist.
Unsuitable extinguishing media	Do not use water jet as this can spread the fire. Do not use carbon dioxide in enclosed spaces with insufficient ventilation.

5.2. Special hazards arising from the substance or mixture

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Specific hazards	In case of fire, toxic gases or vapours may be formed. 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. Sealed containers of the product or other flammable liquids in the near vicinity of the fire can explode due to pressure build up.
Hazardous combustion products	Carbon monoxide (CO). Carbon dioxide (CO ₂).
5.3. Advice for firefighters	
Protective actions during firefighting	Containers close to the fire area should be cooled with water if safe to do so. Be aware that any flammable substance containers are liable to explode when heated. Prevent run-off from entering drains and watercourses. Be aware of dangers from other hazardous substances in the immediate area.
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	Use protective clothing and equipment as described in section 8 of this datasheet. Isolate all sources of ignition. Provide adequate ventilation. Avoid ingestion, inhalation of vapours and contact with skin and eyes. Restrict access to the area until the spillage is treated, if large amounts of vapours are produced that will be hazardous to others, evacuate the area. Use suitable respiratory equipment if spillages occur in enclosed spaces and vapours are produced. Have emergency procedures in place for treating spillages, evacuating the area and informing the emergency services if necessary. When any other effects of spillages will affect the safety of others the area should be evacuated. Restrict access to the area until the spillage is treated and it is safe to return.
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6.2. Environmental precautions

Environmental precautions	Avoid unauthorised discharge to the environment. Do not discharge into drains or watercourses or onto the ground. Clean up any spillages immediately, prevent material from spreading and entering drains or sewage systems. If spillages to land cannot be treated safely or if contamination will occur the Environment Agency must be alerted immediately. Large spillages or uncontrolled discharge to water systems must be alerted to the Environmental Agency or other regulatory body. If the substance has entered a foul drain or sewage system in significant quantity to cause a hazard the local Water Treatment Company must be informed.
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6.3. Methods and material for containment and cleaning up

Methods for cleaning up	Isolate all ignition sources. Avoid heat, flames, sparks and static discharge. NO SMOKING. Small Spillages: Absorb with inert, non-combustible material. Large Spillages: Dam and absorb spillages with sand, earth or other inert, non-combustible material. Fit drain covers where they are available if the spillage is likely to enter the drainage system. Provide adequate ventilation. Any extraction systems used to ventilate the area must be flameproof. Collect and place in suitable waste disposal containers and seal securely. For waste disposal, see Section 13. Containers with collected spillage must be properly labelled with correct contents and hazard symbol. Ensure there are no ignition or heat sources in the waste storage area. Wash spillage site well with water and detergent, be aware of the potential for surfaces to become slippery. Wash thoroughly after dealing with a spillage. After spillages in enclosed areas test atmosphere before using any potential ignition sources. Ventilate area and allow to dry before allowing access.
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6.4. Reference to other sections

Reference to other sections	Refer to sections 8 and 13 for additional information.
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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions

Static electricity and formation of sparks must be prevented. Eliminate all sources of ignition. Avoid spilling. Avoid contact with skin and eyes. Avoid inhalation of vapours and spray/mists. Do not mix with incompatible substances or mixtures. Do not eat, drink or smoke when handling. Do not dispose of the substance to the environment through unauthorised means. Do not discharge to land or water including the drainage system. Do not use in areas close to drainage systems unless measures are in place to prevent access of product. Do not use in confined spaces without adequate ventilation and/or respirator. Use flame proof fume extraction systems to remove vapours away from the work area. Wash at the end of each work shift and before using the toilet. Remove contaminated clothing/footwear/equipment before entering eating areas or other places that would expose others to the substance. Ensure emergency procedures are in place to treat spillages and cope with other situations such as evacuation.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions

Keep away from oxidising materials, heat and flames. Avoid all ignition sources. Store in area with adequate ventilation and sufficient air movement to prevent any build up of vapours. Store in closed original container at temperatures between 15°C and 25°C. Store away from heat, direct sunlight and moisture. Store away from oxidising agents. Store away from incompatible materials. Keep above the chemical's freezing point. Store in a stable situation to avoid spillages. It is advisable to store in a bunded area or use other protective measures such as a sump pallet or storage tray. If the substance is transferred to other containers ensure the packaging material is compatible. Consult with the packaging manufacturer or supplier. Do not leave storage containers exposed to the atmosphere as this will result in evaporation of contents.

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

Long-term exposure limit (8-hour TWA): WEL 50 ppm(Sk) 150 mg/m³(Sk)

Short-term exposure limit (15-minute): WEL 100 ppm(Sk) 300 mg/m³(Sk)

WEL = Workplace Exposure Limit

DNEL

Industry - Inhalation; Short term : 300 (Systemic and local) mg/m³

Taken from the ECHA website: List of Registered Substances -Toxicity data.

Industry - Dermal; Long term systemic effects: 25 mg/kg/day

Industry - Inhalation; Long term : 150 (Systemic and local) mg/m³

Consumer - Inhalation; Short term Industry - Dermal; Long term systemic effects 22 mg/kg/day: 150 (Systemic and local) mg/m³

Consumer - Dermal; Long term systemic effects: 15 mg/kg/day

Consumer - Inhalation; Long term systemic effects: 62 mg/m³

Consumer - Oral; Long term systemic effects: 15 mg/kg/day

Consumer - Inhalation; Long term local effects: 75 mg/m³

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PNEC

- Fresh water; 4.32 mg/l
- Taken from the ECHA website: List of Registered Substances - Ecotoxicity data.
- Marine water; 0.432 mg/l
- Intermittent release; 21.6 mg/l
- STP; 4.6 mg/l
- Sediment (Freshwater); 23.3 mg/kg
- Sediment (Marinewater); 2.33 mg/kg
- Soil; 2.13 mg/kg

8.2. Exposure controls

Appropriate engineering controls

Provide adequate general and local exhaust ventilation. Use explosion-proof general and local exhaust ventilation. If vapours or mists are generated, work in a fume cupboard.

Eye/face protection

Wear approved chemical safety goggles conforming to EN 166.

Hand protection

Wear protective gloves. Laminate film barrier. If possible it is recommended that the glove has a breakthrough time of 480 minutes. Gloves should carry the CE mark and conform to BS EN 374, chemicals and micro-organisms. 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. Gloves should have a breakthrough time sufficient for the amount of handling but allow dexterity for safe movement and handling. When removing used gloves apply proper technique by avoiding skin contact with the outer surface. Gloves showing signs of degradation should be changed to avoid skin contamination. When packages of the product are being handled during storage or transport it is advisable to wear protective gloves to prevent damage to the skin.

Other skin and body protection

Wear suitable protective clothing during transport, handling and storage operations connected with the product. Protective clothing should conform to the general requirements of EN 340:2003. Also consider EN 13034:2005; EN 14605:2005; EN 943:2002 dependent upon the situation resulting in exposure. Wear suitable protective footwear during handling of the product. When treating spillages it is recommended to wear protective boots, consult with the supplier as to the compatibility. Safety footwear should conform to standards EN 344 - 347. Wear plastic apron and full length gloves if handling large amounts. If there is a risk of splashing then wear a face shield. Have facilities in place to wash eyes in case of contact. If handling large amounts it is recommended to have a safety shower. Wear anti-static footwear.

Hygiene measures

Remove clothing when contamination will result in exposure to the substance, segregate and wash before re-use. Do not eat, drink or smoke in the work area. Wash at the end of each work shift and before eating, smoking and using the toilet. Remove contaminated clothing when entering eating areas or other places that could lead to contamination of others with the product.

Respiratory protection

Wear suitable respiratory protection when vapours or mists are produced if the Workplace Exposure Limit is exceeded and there is insufficient ventilation or extraction. Wear a respirator fitted with the following cartridge: Organic vapour filter. CAUTION: Air purifying respirators do not protect the user in oxygen deficient atmospheres, use air supplied system. Consult with the supplier as to the compatibility of the equipment with the chemical of concern. Respiratory protection should conform to the following standards. BS EN 140: Half-face masks. BS EN 136: Full face masks. Powered air respirators should meet requirements of EN146 and EN12941. Airline fed respirators should meet the requirements of EN 270 and EN1835. Respiratory protection should be maintained in a proper condition and inspected at the frequency specified by current legislation.

Environmental exposure controls

See section 6 for details.

SECTION 9: Physical and Chemical Properties

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9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Colourless.
Odour	Ether-like.
Odour threshold	Not available. Not available.
pH	Not available. Not available.
Melting point	-108.44°C @ 760 mm Hg°C
Initial boiling point and range	65°C @ 101.3 kPa°C @ Industry - Dermal; Long term systemic effects 22 mg/kg/day
Flash point	-21.2°C CC (Closed cup). Abel-Pensky method.
Evaporation rate	Not available.
Evaporation factor	Not available.
Flammability (solid, gas)	No
Upper/lower flammability or explosive limits	Upper flammable/explosive limit: 11.8% Lower flammable/explosive limit: 1.8%
Vapour pressure	17 kPa @ °C
Relative density	0.833 @ 25 @ °C
Solubility(ies)	Not available. Miscible with water. Miscible with water.
Partition coefficient	log Pow: 0.45 OECD Test Guideline 107. Temperature = 25°C.
Auto-ignition temperature	215°C Standard atmospheric pressure is assumed.
Decomposition Temperature	Not available.
Viscosity	0.456 mPa s @ 25°C
Explosive properties	Not explosive in its normal state. May form explosive vapour / air mixtures. More sensitive to shock than m-dinitrobenzene: Not applicable. More sensitive to friction than m-dinitrobenzene: Not applicable.
Oxidising properties	Does not meet the criteria for classification as oxidising.
Comments	'Not available' means the information is not registered or is not available from the supplier. 'Not applicable' means the property does not apply to the product.

9.2. Other information

Other information All available information has been included in section 9.1.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity Reacts vigorously with strong oxidising agents and acids.

10.2. Chemical stability

Stability Stable when stored in sealed container at normal temperatures and in a suitable location. Evaporation will occur if the containers are not sealed correctly. Agitation of the substance in storage containers may produce a build up of electrostatic charge. Forms explosive mixtures with air.

10.3. Possibility of hazardous reactions

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Possibility of hazardous reactions

Can form highly explosive peroxides when left exposed to the atmosphere. Hazardous reactions can occur with sodium or potassium hydroxide in the presence of oxidisers. Can polymerise in the presence of cationic initiators.

10.4. Conditions to avoid

Conditions to avoid

Avoid sources of heat and ignition. Avoid direct sunlight and moisture. Avoid storage with incompatible materials. Avoid storage in freezing conditions. Avoid storage near to unprotected drainage systems. It is advisable to store the product within some form of containment to prevent spillages reaching drainage systems. Situations that would produce vibration or agitation of the substance in storage containers as there is the potential to build up static charge, particularly in metal or compatible plastic containers. Do not allow the storage container to be left exposed to the atmosphere. Avoid storage in an unstable manner or in a situation that would result in exposure to the product.

10.5. Incompatible materials

Materials to avoid

Oxidising agents. Acids. Bases. If the substance is transferred to another container ensure compatibility. Consult with the packaging manufacturer on suitability of material.

10.6. Hazardous decomposition products

Hazardous decomposition products

Does not decompose when used and stored as recommended. See section 5 for thermal decomposition products.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

Notes (oral LD₅₀) 14 day old male rats, units = mls / kg.

ATE oral (mg/kg) 500.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 2,000.0

Species Rat

Notes (dermal LD₅₀) OECD Guideline 402, Acute Dermal Toxicity.

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ gases ppmV) 5,000.0

Species Rat

Notes (inhalation LC₅₀) Industry - Dermal; Long term systemic effects 22 mg/kg/day 6 hour duration

ATE inhalation (gases ppm) 5,000.0

Skin corrosion/irritation

Animal data

Dose: , 72 hr, Rabbit Primary dermal irritation index: 1.93 Erythema/eschar score: Very slight erythema - barely perceptible (1). Oedema score: Very slight oedema -barely perceptible (1). 24 hour: erythema and edema = 0.8 (non-abraded), 1.0 (abraded); 72 hour: erythema = 0.7, edema = 1.0 (non-abraded), erythema and edema = 1.2 (abraded). Not irritating.

Serious eye damage/irritation

Serious eye damage/irritation Severe eye irritant.

Skin sensitisation

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Skin sensitisation	Local Lymph Node Assay (LLNA) - Mouse: OECD Guideline 429, Skin Sensitisation: Local Lymph Node Assay. Not sensitising.
<u>Germ cell mutagenicity</u>	
Genotoxicity - in vitro	Gene mutation:: Negative., With and without metabolic activation. OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test).
Genotoxicity - in vivo	Chromosome aberration: Negative. OECD Guideline 474. Inhalation, mouse.
<u>Carcinogenicity</u>	
Carcinogenicity	1800 ppm, Inhalation, Rat NOAEC for 6 hours / day, 5 days per week, 105 weeks. Not a carcinogen.
<u>Reproductive toxicity</u>	
Reproductive toxicity - fertility	Two-generation study - NOAEL 9000 ppm, Oral, Rat F1 OECD Guideline 416. No adverse effects to reproduction
Reproductive toxicity - development	Maternal toxicity: - NOAEL: 600 ppm, Inhalation, Mouse OECD Guideline 414.
<u>Specific target organ toxicity - single exposure</u>	
STOT - single exposure	No information available. Industry - Dermal; Long term systemic effects 22 mg/kg/day , , No supplied or registered information.
Target organs	Respiratory system, lungs Central nervous system
<u>Specific target organ toxicity - repeated exposure</u>	
STOT - repeated exposure	NOAEL 1000 mg/l mg/kg, Oral, Rat OECD 407 equivalent
Target organs	No specific target organs known.
<u>General information</u>	
General information	Effects will be dependent upon the concentration and length of time of exposure. Higher concentrations will produce more pronounced effects. Cardiovascular effects and a reduction in white blood cell count can be produced on exposure to higher concentrations. Systemic effects may lead to liver and kidney damage.
Inhalation	Irritation of the respiratory system. Headache, nausea. Coughing and difficulties in breathing. May cause pulmonary oedema.
Ingestion	May cause nausea, headache and dizziness. Stomach pain and vomiting. Risk of aspiration upon vomiting. Central nervous system depression.
Skin contact	May irritate the skin. Repeated exposure may cause skin dryness or cracking.
Eye contact	Irritating to eyes. A single exposure may cause the following adverse effects: Corneal damage.

SECTION 12: Ecological Information

Ecotoxicity Although not classified as environmentally hazardous, harmful effects cannot be excluded in the event of improper handling or disposal.

12.1. Toxicity

Acute toxicity - fish LC50, 96 hours: 2160 mg/l, Pimephales promelas (Fat-head Minnow)
 OECD Guideline 203 (Fish, Acute Toxicity Test)
 Freshwater, flow through.

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Acute toxicity - aquatic invertebrates	NOEC, 48 hours: 1500 ppm , Daphnia magna OECD Guideline 202. Static, freshwater.
Acute toxicity - aquatic plants	, 192 hours: 3700 mg/l, Toxicity threshold concentration. Scenedesmus quadricauda. Static, freshwater.
Acute toxicity - microorganisms	, 3 hours: 460 mg/l, Activated sludge OECD Guideline 209: Activated Sludge, Respiration Inhibition Test. IC50, static, freshwater.
Acute toxicity - terrestrial	Not available. No supplied or registered information
Chronic toxicity - fish early life stage	NOEC, : 216 mg/l, Pimephales promelas (Fat-head Minnow) >24 hours old, flow through, 33 day exposure.
Short term toxicity - embryo and sac fry stages	Not available. No supplied or registered information
Chronic toxicity - aquatic invertebrates	Not available. No supplied or registered information
<u>12.2. Persistence and degradability</u>	
Phototransformation	Not available. No supplied or registered information
Stability (hydrolysis)	Scientifically unjustified.
Biodegradation	Water - Degradation (%) 61%: 56 days OECD Guideline 301D. Inherently biodegradable after 56 days. Water - Degradation (%) 82%: 28 days OECD 301 F (Ready biodegradability). Aerobic, activated sludge.
Chemical oxygen demand	1.855 g O ₂ /g substance Aerobic; activated sludge, domestic. 28 day period. Under the test conditions, tetrahydrofuran was not found to be readily biodegradable.
<u>12.3. Bioaccumulative potential</u>	
Bioaccumulative potential	No data available on bioaccumulation. No supplied or registered information
Partition coefficient	log Pow: 0.45 OECD Test Guideline 107. Temperature = 25°C.
<u>12.4. Mobility in soil</u>	
Adsorption/desorption coefficient	Water - log Koc: 1.26 - 1.37 @ °C Desorption
Henry's law constant	Not available. No supplied or registered information
Surface tension	26.4 mN/m @ @ 25°C
<u>12.5. Results of PBT and vPvB assessment</u>	
Results of PBT and vPvB assessment	This substance is not classified as PBT or vPvB according to current EU criteria.
<u>12.6. Other adverse effects</u>	
Other adverse effects	Will affect drinking water supplies. May effect germination and growth rates of plants if soil contamination occurs. Damaging effects from fire.

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SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information

Any waste material is classed as hazardous waste, it should only be disposed of through licenced waste handlers and treatment sites. Do not allow unauthorised disposal to the environment. Avoid sources of ignition when handling waste. If operators are exposed to vapours during the disposal process then suitable respiratory protection should be worn. All other personal protective equipment as described in section 8 should be worn. When handling waste, the safety precautions applying to handling of the product should be considered.

Disposal methods

Waste material should not be disposed of directly to drain. Uncleaned empty containers should be treated as hazardous waste. Avoid unauthorised disposal. Do not dump illegally onto land or into water. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. The recommended method for treatment of waste residues is either reclamation or incineration by specialist disposal company. Reuse or recycle products wherever possible. When dealing with waste always consider the waste management hierarchy of Prevention, Preparation for re-use, Recycling, Recovery and Disposal. It is advisable to minimise waste at source if possible, then re-use, recover or recycle wherever possible before considering waste disposal options.

SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID) 2056

UN No. (IMDG) 2056

UN No. (ICAO) 2056

14.2. UN proper shipping name

Proper shipping name (ADR/RID) TETRAHYDROFURAN

Proper shipping name (IMDG) TETRAHYDROFURAN

Proper shipping name (ICAO) TETRAHYDROFURAN

Proper shipping name (ADN) TETRAHYDROFURAN

14.3. Transport hazard class(es)

ADR/RID class 3

ADR/RID label 3

IMDG class 3

ICAO class/division 3

Transport labels



14.4. Packing group

ADR/RID packing group II

IMDG packing group II

ICAO packing group II

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14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

EmS F-E, S-D

Emergency Action Code •2YE

Hazard Identification Number 33
(ADR/RID)

Tunnel restriction code (D/E)

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

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

SECTION 15: Regulatory information

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

National regulations The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No. 716).
Control of Substances Hazardous to Health Regulations 2002 (as amended).

EU legislation 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).
Regulation (EU) 453/2010.

Guidance Workplace Exposure Limits EH40.
ECHA Guidance on the compilation of safety data sheets 2014.

15.2. Chemical safety assessment

Information from the manufacturer of the raw material has not been received regarding Chemical Safety Assessments, Exposure Scenarios or a Chemical Safety Report.

SECTION 16: Other information

General information This datasheet is not intended to be a replacement for a full risk assessment, these should always be carried out by competent persons.

Key literature references and sources for data ECHA website. Raw material safety data sheets.

Revision comments General rewrite

Revision date 27/04/2016

Revision 3

Supersedes date 30/07/2015

SDS number 21135

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Risk phrases in full

R11 Highly flammable.
R19 May form explosive peroxides.
R36/37 Irritating to eyes and respiratory system.

Hazard statements in full

H225 Highly flammable liquid and vapour.
H302 Harmful if swallowed.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H351 Suspected of causing cancer.