

Material Safety Data Sheet FireDETEC® F/K ea

Section 1: Identification of the Material and Supplier

Product Name	FireDETEC® F/K ea
Recommended Use	Fire extinguishing agent for class F fires (grease based fires).
Supplier Identification ¹	<p>ROTAREX S.A. 24, rue de Diekirch, BP 19 L-7505 Lintgen Luxembourg Tel. : +352 32 78 32-1 (from 8 a.m. to 5p.m.) Fax: +352 32 78 32-854 E-mail: info@rotarex.com</p>
Emergency telephone number	GIZ-Nord Poisons Centre of the University of Göttingen Telephone +49 (0)551/19240 (ask information about FETTEX® product)

Section 2: Hazards Identification

Classification according to Regulation (EC) No. 1272/2008 [CLP]	This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP].		
Labelling according to Regulation (EC) No. 1272/2008 [CLP]	Hazard pictograms		This mixture is classified as no hazardous according to regulation (EC) 1272/2008 [CLP].
	Hazard statements	None	
	Precautionary statements	P262 Do not get in eyes, on skin, or on clothing. P280 Wear protective gloves/protective clothing/eye protection/face protection. P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting. P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.	
Other hazards	Can harm the aquatic fauna when entering surface waters. Can harm the bacteria population in waste water treatment plants when entering the sewerage system.		

¹ For any information regarding the substance production plant, please formulate a specific request.

Section 3: Composition / Information on Ingredients

Substances

Section 4: First Aid Measures

Description of first aid measures	General information	Remove contaminated, saturated clothing immediately. Wash thoroughly the body (shower or bath). Observe risk of aspiration if vomiting occurs. When in doubt or if symptoms are observed, get medical advice.
	Following inhalation	Provide fresh air. Consult a doctor immediately in the case of inhaling spray mist and show him packing or label.
	In case of skin contact	Wash immediately with: Water
	After eye contact	In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.
	After ingestion	Do NOT induce vomiting. If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention.
	Most important symptoms and effects, both acute and delayed	Dizziness Nausea. Gastrointestinal complaints.
Indication of any immediate medical attention and special treatment needed	If unconscious place in recovery position and seek medical advice. IF SWALLOWED: Immediately call a POISON CENTER/doctor/	

Section 5: Fire Fighting Measures

Extinguishing media	The product itself does not burn. Co-ordinate fire-fighting measures to the fire surroundings.
Special hazards arising from the substance or mixture	The product itself does not burn.
Advice for firefighters	Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

Section 6: Accidental Release Measures

Personal precautions, protective equipment and emergency procedures	Provide adequate ventilation.
Environmental precautions	Cover drains. Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.
Methods and material for containment and cleaning up	Take up mechanically, placing in appropriate containers for disposal.

Methods and material for containment and cleaning up	Treat the recovered material as prescribed in the section on waste disposal. Suitable material for taking up <ul style="list-style-type: none"> - Sand. - Sawdust. - Chemical binding agents, containing acids
Reference to other sections	Safe handling: see section 7 Personal protection equipment: see section 8

Section 7: Handling and Storage

Precaution for safe handling	Avoid <ul style="list-style-type: none"> - Skin contact - Eye contact. Wear personal protection equipment. (see chapter 8).
	Fire prevent measures The product is not <ul style="list-style-type: none"> - Oxidizing - Combustible - Flammable - Explosive - Highly flammable No special fire protection measures are necessary.
	Environmental precautions Shafts and sewers must be protected from entry of the product. See chapter 8.
	Advices on general occupational hygiene When using do not eat, drink, smoke, sniff.
Conditions for storage rooms and vessels	Technical measures and storage conditions Do not store at temperatures above: +50°C
	Requirements for storage rooms and vessels Suitable container/equipment material <ul style="list-style-type: none"> - Refined steel. - Polyethylene (PE) Unsuitable container/equipment material <ul style="list-style-type: none"> - Aluminium. - Light metal. - Copper. - Zinc. - Alloy, containing copper. - Alloy, contains light metal. - Iron. - Steel. Hints on storage assembly Storage class <ul style="list-style-type: none"> - 12: Non-combustible liquids.
Specific end use(s)	Fire-extinguishing foams based on synthetic surfactants Do not use for cleaning purposes.
	Recommendation Observe technical data sheet.

Section 8: Exposure Controls / Personal Protection

Control parameters	<p>Substance name: --- CAS No.: --- ; EC No.: --- occupational exposure limit value: ---; Limit value type (country of origin): ---</p>
Exposure controls	<p>Advices on general occupational hygiene Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500. Avoid contact with skin, eyes and clothes. Remove contaminated, saturated clothing. Wash contaminated clothing prior to re-use. Wash hands before breaks and after work. Apply skin care products after work.</p> <p>Eye/face protection Suitable eye protection <ul style="list-style-type: none"> - Eye glasses with side protection - Goggles - Face protection shield Recommended eye protection articles <ul style="list-style-type: none"> - DIN EN 166 </p> <p>Hand protection Suitable gloves type <ul style="list-style-type: none"> - Gloves with long cuffs Suitable material <ul style="list-style-type: none"> - NBR (Nitrile rubber). - Butyl caoutchouc (butyl rubber). Breakthrough time (maximum wearing time) <ul style="list-style-type: none"> - 120 min. Recommended glove articles <ul style="list-style-type: none"> - DIN EN 374 Breakthrough times and swelling properties of the material must be taken into consideration.</p> <p>Body protection Body protection: not required.</p> <p>Respiratory protection Usually no personal respirative protection necessary.</p> <p>Environmental exposure controls Store concentrate according to national regulations (VAwS). Do not let the concentrate get into the environment. If possible, hold back the application solution and dispose of after use.</p>

Section 9: Physical and Chemical Properties

Physical state	Liquid
Colour	Blue
pH value at 20°C	8.0 – 9.0 (DIN 19268)
Density at 20°C	1.260 – 1.300 g/ml (DIN 12791)
Kinematic viscosity at 20°C	< 10 mm ² /s (DIN 51562)
Kinematic viscosity at -25°C	< 50 mm ² /s (DIN 51562)
Solidification Point	-25°C (-13°F) (DIN ISO 3016)
Boiling temperature / boiling range	> 100°C (212°F)

Water solubility (g/l)	Complete miscible (OECD 105)
Flashpoint	No flash point up to 100°C
Physical hazards	Breathing is not possible whilst submerged in the foam. Take care when spraying people!
Other information	---

Section 10: Stability and Reactivity

Reactivity	Materials to avoid <ul style="list-style-type: none"> - Alkali (lye), concentrated. - Alkali metals. - Acid, concentrated. - Oxidizing agent, strong. - Reducing agent, strong. - Acid halides.
Chemical stability	No special measures are necessary.
Possibility of hazardous reactions	No special measures are necessary.
Conditions to avoid	Do not store at temperatures above: +50°C.
Incompatible materials	See chapter 7. No additional measures necessary.
Hazardous decomposition products	---

Section 11: Toxicological Information

Toxicological Tests	Acute oral toxicity	LD50 >2000 mg/kg The acute oral toxicity is corresponding to GHS-category 5. Species Rat. Method Limit test.
	Acute dermal toxicity	The product has not been tested.
	Acute inhalation toxicity	The product has not been tested.
	Skin corrosion/irritation	Not an irritant Species --- Method Mixture not tested. Test was carried out with similar preparation/mixture.
	Eye damage/irritation	Not an irritant Species --- Method Mixture not tested. Test was carried out with similar preparation/mixture.
	Irritation to respiratory tract	The product has not been tested.
	Respiratory or skin sensitisation	The product has not been tested.
	Repeated dose toxicity	The product has not been tested.
	Carcinogenicity	The product has not been tested.
	In vivo mutagenicity/genotoxicity	The product has not been tested.
	Reproductive toxicity	The product has not been tested.

Section 12: Ecological Information

Toxicity	Acute (short-term) fish toxicity
	Effective dose LC50 : ~ 245 mg/l
	Exposure time : 96 h
	Species : Leuciscus idus (golden orfe)
	Method : OECD 203
Acute (short-term) daphnia toxicity	Acute (short-term) daphnia toxicity
	Effective dose EC50 : ~ 5200 mg/l
	Exposure time : 24 h
	Species : Daphnia magna (Big water flea).
	Method : OECD 202
Acute (short-term) algae toxicity	Acute (short-term) algae toxicity
	Effective dose EC50 : ~ 720 mg/l
	Exposure time : 72 h
	Species : Scenedesmus subspicatus.
	Method : OECD 201
Effects in sewage plants	Effects in sewage plants
	Method : Respiratory inhibition of municipal activated sludge.
	5500 mg/l ► Concentration : 100% Dilution : > 182
	Technically correct releases of minimal concentrations to adapted biological sewage plants, will not disturb the biodegradability of activated sludge.
	The product may lead to foaming in sewage plants.
Remark	Remark
	Observe local regulations concerning effluent treatment.
	Special pre-treatments are necessary.
Persistence and degradability	Biodegradation
	Readily biodegradable (according to OECD criteria).
	Degradation rate (%) : ~ 98%
	Time (d) : 25
	Analytical method : BOD (% of COD).
Chemical oxygen demand (COD)	Method : OECD 302B/ ISO 9888/ EEC 92/69/V, C.9
	Type : aerobic biological treatment
	~ 378000 mg*O2/L ► Concentration : 100% Method DIN EN 38409-H41-1
Biochemical oxygen demand (BOD)	Biochemical oxygen demand (BOD)
	~ 305000 mg*O2/L ► Concentration : 100% Method DIN EN 1899-1
	Test duration 5 d
BOD5/COD ratio: 81%	BOD5/COD ratio: 81%

Bioaccumulative potential	

Mobility in soil	If product enters soil, it will be mobile and may contaminate groundwater.

Results of PBT and vPvB assessment	

Other adverse effects	

Section 13: Disposal Considerations

Waste treatment methods	Dispose of waste according to "Kreislaufwirtschafts- und Abfallgesetz (KrW-/AbfG)". Dispose of waste according to applicable legislation
List of proposed waste codes/waste designations in accordance with EWC	<p>Waste code product</p> <p>06 WASTES FROM INORGANIC CHEMICAL PROCESSES</p> <p>0603 wastes from the MFSU of salts and their solutions and metallic oxides</p> <p>060314 solid salts and solutions other than those mentioned in 06 03 11 and 06 03 13</p> <p>Waste code packaging</p> <p>15 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED</p> <p>1501 packaging (including separately collected municipal packaging waste)</p> <p>150110* packaging containing residues of or contaminated by dangerous substances</p>
Remark	Delivery to an approved waste disposal company. Send to a hazardous waste incinerator facility under observation of official regulations. Dispose according to legislation.

Section 14: Transport Information

UN number	none
UN proper shipping name	not applicable
Transport hazard class(es)	<p>Land transport (ADR/RID)</p> <ul style="list-style-type: none"> - No dangerous good in sense of this transport regulation. <p>Inland waterway craft (ADN)</p> <ul style="list-style-type: none"> - No dangerous good in sense of this transport regulation. <p>Sea transport (IMDG)</p> <ul style="list-style-type: none"> - No dangerous good in sense of this transport regulation. <p>Air transport (ICAO-TI / IATA-DGR)</p> <ul style="list-style-type: none"> - No dangerous good in sense of this transport regulation.
Packing group	Not applicable
Environmental hazards	<p>None</p> <p>Marine pollutant : No</p>
Special precautions for user	none
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	not applicable

Section 15: Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture	<p>EU LEGISLATION</p> <p>Regulation (EC) No. 2037/2000 concerning materials, which cause damage to the ozone layer.</p> <p>not applicable</p>
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Safety, health and environmental regulations/legislation specific for the substance or mixture	<p>Regulation (EC) No. 304/2003 of the European parliament and of the council concerning the export and import of dangerous chemicals not applicable</p> <p>Directive 96/59/EC (PCB-guideline) not applicable</p> <p>Regulation (EC) No. 648/2004 (Detergents regulation) The surfactants contained in this preparation comply with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents.</p> <p>Information according to 1999/13/EC about limitation of emissions of volatile organic compounds (VOC-guideline). Volatile organic compounds (VOC) content in percent by weight: max. 0</p> <p>Regulation (EC) No. 842/2006 on certain fluorinated greenhouse gases. not applicable</p> <p>GERMAN REGULATIONS</p> <p>Störfallverordnung Not subject to StörfallVO.</p> <p>Water hazard class (WGK) slightly hazardous to water (WGK 1) Classification according to VwVwS, Annex 4.</p> <p>annex Chemikalien-Verbotsverordnung (ChemVerbotsV) not applicable</p>
Chemical Safety Assessment	Chemical safety assessment

Section 16: Other Information

The product described in the Safety Data Sheet may only be used for its intended purpose. The details in this safety data sheet are based on today's stand of our knowledge and are applicable to the product with regard to appropriate safety precautions. They do not represent any guarantee of the properties of the product and do not establish any legal relationship.

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

Revision date: 18/03/2015