SAFETY DATA SHEET
FirePal Kitchen

The safety data sheet is in accordance with Commission Regulation (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

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

Date issued	25.05.2011
Revision date	30.10.2015

1.1. Product identifier

Product name	FirePal Kitchen
Article no.	600074

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

Product group	Aerosol
Use of the substance/preparation	Foam extinguisher For extinguishing small fires in cooking oil and fat

1.3. Details of the supplier of the safety data sheet

Distributor

Company name	GPBM Nordic AB
Postal address	Argongatan 2B
Postcode	SE-431 53
City	Mölndal
Country	Sweden
Tel	+46 31 799 16 00
Fax	+46 31 799 16 01
E-mail	info@gpbmnordic.se
Website	www.gpbmnordic.se
Contact person	Frank Ottesen

1.4. Emergency telephone number

Emergency telephone	**Tel:** 112 or 999 **Description:** Only emergency call number

SECTION 2: Hazards identification

2.1. Classification of substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP / GHS]	Aerosol 3; H229
Substance / mixture hazardous properties	Pressurized container: May explode when heated.

2.2. Label elements

Composition on the label	Potassium hydroxide
Signal word	Warning
Hazard statements	H229 Pressurised container: May burst if heated.
Precautionary statements	P102 Keep out of reach of children. P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P410+P412 Protect from sunlight. Do no expose to temperatures exceeding 50 °C / 122°F. P501 Dispose of contents / container to a licensed collector of hazardous waste.

2.3. Other hazards

PBT / vPvB	PBT/vPvB assessment has not been performed.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Substance	Identification	Classification	Contents
Caustic potash	CAS no.: 1310-58-3 EC no.: 215-181-3 Index no.: 019-002-00-8	Acute Tox. 4;H302 Skin Corr. 1A;H314	15 - 25 %
Acetic acid ...%	CAS no.: 64-19-7 EC no.: 200-580-7 Index no.: 607-002-00-6	Flam. Liq. 3;H226 Skin Corr. 1A;H314 Note : B	10 - 20 %
Citric acid, monohydrate	CAS no.: 5949-29-1 EC no.: 201-069-1	Eye Irrit. 2; H319	5 - 15 %
Substance comments	The ingredients in section 3.2 have reacted and neutralization has occurred. After the neutralization rection, potassium citrate and potassium acetate is formed. The product is not corrosive. See section 16 for explanation of hazard statements (H) listed above.		

SECTION 4: First aid measures

4.1. Description of first aid measures

General	In case of unconsciousness or severe accidents, call 112.
Inhalation	Fresh air and rest. Contact physician if symptoms persist.
Skin contact	Remove contaminated clothing. Wash skin with soap and water. Get medical attention if any discomfort continues.
Eye contact	Make sure to remove any contact lenses from the eyes before rinsing. Immediately rinse with water for several minutes. Hold eyelids apart. Get medical attention if any discomfort continues.

Ingestion	Unlikely because of the chemical condition. Rinse mouth thoroughly with water and give large amounts of milk or water to people not unconscious. Get medical attention if any discomfort continues.

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

Acute symptoms and effects	Spray and vapour in the eyes may cause irritation and smarting.

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

Other Information	No specific information from the manufacturer. Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	The chemical is a fire extinguiser.

5.2. Special hazards arising from the substance or mixture

Fire and explosion hazards	The chemical is not classified as flammable. Aerosol containers can explode when heated, due to excessive pressure build-up.
Hazardous combustion products	Carbon monoxide (CO). Carbon dioxide (CO_2). Potassium oxide.

5.3. Advice for firefighters

Personal protective equipment	Use compressed air equipment when the chemical is involved in fire. In case of evacuation, an approved protection mask should be used. See also section 8.
Fire fighting procedures	Water spray should be used to cool containers.
Other Information	Extinguishing water must not be discharged into drains.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal protection measures	Provide adequate ventilation. Avoid inhalation of vapours and contact with skin and eyes. Use protective equipment as referred to in section 8. In case of spills, beware of slippery floors and surfaces.

6.2. Environmental precautions

Environmental precautionary measures	Prevent spillage of large quantity to sewer, waterway or ground.

6.3. Methods and material for containment and cleaning up

Cleaning method	Remove spillage with inert absorbent materials. After cleaning, wipe the surface with water. Collect in a suitable container and dispose as hazardous waste according to section 13.

6.4. Reference to other sections

Other instructions	See also sections 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Handling	Provide good ventilation. Container must be kept tightly closed. Avoid inhalation of vapours and contact with skin and eyes. Use protective equipment as referred to in section 8.

Protective Safety Measures

Advice on general occupational hygiene	Wash hands after contact with the chemical. Change contaminated clothing and take off protective equipment before the meal. Do not smoke, drink or eat in the workplace.

7.2. Conditions for safe storage, including any incompatibilities

Storage	Aerosol cans: Must not be exposed to direct sunlight or temperatures above 50 °C. Avoid storage temperature below -5 ºC.

Conditions for safe storage

Advice on storage compatability	Keep away from: metals that react with water.
Storage Stabilit	Maximum storage time: 5 years.

7.3. Specific end use(s)

Specific use(s)	See section 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Substance	Identification	Value	TWA Year
Potassium hydroxide	CAS no.: 1310-58-3 EC no.: 215-181-3	**OEL Short Term Value** Value: 2 mg/m³	
Other Information about threshold limit values	References (laws/regulations): EH40/2005 Workplace exposure limits, with later amendments.		

8.2. Exposure controls

Limitation of exposure on workplace	Must not be handled in confined space without sufficient ventilation. The personal protective equipment must be CE-marked and the latest version of the standards shall be used. The protective equipment and the specified standards recommended below are only suggestions, and should be selected on advice from the supplier of such equipment. A risk assessment of the work place/work activities (the actual risk) may lead to other control measures. The protection equipments suitability and durability will depend on application.

Respiratory protection

Respiratory protection	Normally not required. At work in confined or poorly ventilated spaces, respiratory protection with air supply must be used.

Reference to relevant standard	Self-contained open-circuit compressed air breathing apparatus with full face mask. Requirements, testing, marking – BS-EN 137.

Hand protection

Hand protection	Use protective gloves that are suitable for the application, made of: Rubber (natural, latex). Butyl rubber. Neoprene. Nitrile. Polyvinyl chloride (PVC). teflon. Viton rubber (fluor rubber). Glove thickness must be chosen in consultation with the glove supplier, who can inform about the breakthrough time for the glove.
Reference to relevant standard	BS-EN 420 (Protective gloves. General requirements and test methods). BS-EN 374 (Protective gloves against chemicals and micro-organisms).

Eye / face protection

Eye protection	Wear safety goggles if there is a risk of splash.
Reference to relevant standard	EN 166 (Personal eye-protection. Specifications).

Skin protection

Skin protection (except hands)	Ordinary workwear. Long sleeved clothing.

Appropriate environmental exposure control

Environmental exposure controls	Do not allow to enter into sewer, water system or soil.

Other Information

Other Information	Eye wash facilities should be available when handling this chemical.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Aerosol. / The data in this section apply to the liquid.
Colour	Transparent.
Odour	Mild.
Odour limit	**Comments:** Not specified by the manufacturer.
pH	**Status:** In delivery state **Value:** 7,0 – 8,5
Melting point/melting range	**Value:** -5 °C
Boiling point / boiling range	**Value:** 100 °C **Comments:** 760 mm Hg
Flash point	**Value:** > 98 °C
Evaporation rate	**Comments:** Not specified by the manufacturer.
Flammability (solid, gas)	Nonflammable accordaing to aerosol regulations.
Explosion limit	**Comments:** Not specified by the manufacturer.
Vapour pressure	**Comments:** Not specified by the manufacturer.
Vapour density	**Comments:** Not specified by the manufacturer.

Specific gravity	**Value:** 1,2 – 1,4 **Comments:** Water = 1 **Temperature:** 20 °C
Solubility in water	Soluble.
Partition coefficient: n-octanol/water	**Comments:** Not specified by the manufacturer.
Spontaneous combustability	**Comments:** Not specified by the manufacturer.
Viscosity	**Value:** < 30 mN/m
Explosive properties	Not explosive.
Oxidising properties	Not oxidising.

9.2. Other information

Other physical and chemical properties

Comments	No further information is available.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	No test data available.

10.2. Chemical stability

Stability	The chemical is stable under normal conditions of storage and use.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Arise in contact with incompatible materials (section 10.5).

10.4. Conditions to avoid

Conditions to avoid	Avoid temperatures below -5 °C and over 50 °C.

10.5. Incompatible materials

Materials to avoid	Keep away from metals that react with water.

10.6. Hazardous decomposition products

Hazardous decomposition products	None under normal conditions. See also section 5.2.

Other information

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Other toxicological data	Potassium hydroxide: LD50 oral, rat: 273 mg/kg

	Acetic acid: LD50 oral, rat: 3310 mg/kg LD50 dermal, rabbit: 1060 mg/kg LC50 inhalation (4h), rat: 11,4 mg/l

Acute toxicity, Mixture estimate

Assessment of acute toxicity classification	Based on available data, the classification criteria are not met.

Potential acute effects

Inhalation	No symptoms are known.
Skin contact	May cause slight irritation. Contains components which may penetrate the skin.
Eye contact	May cause temporary eye irritation.
Ingestion	Low acute toxicity. However, ingestion may cause irritation and malaise.
Assessment corrosion / irritation classification	Based on available data, the classification criteria are not met.
Aspiration hazard	Based on available data, the classification criteria are not met.

Delayed effects / repeated exposure

Sensitisation	Based on available data, the classification criteria are not met.

Carcinogenic, Mutagenic or Reprotoxic

Carcinogenicity	Based on available data, the classification criteria are not met.
Mutagenicity	Based on available data, the classification criteria are not met.
Reproductive toxicity	Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity	Acetic acid: LC50 96h (fish): 79 mg/l (Pimephales promelas) – harmful EC50 48h (Daphnia): 65 mg/l (D. magna) – harmful Log Pow: -0,23 (no bioaccumulation) Biodegradability: >60% (28 days OECD 301D) Citric acid: log Pow: 0 (no bioaccumulation) Biodegradability:>70% (28 days OECD 301D) Potassium hydroxide: LC50 96h (fish): 80 mg/l (Gambusia affinis) log Pow: <0 (no bioaccumulation) The chemical is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills may be potentially hazardous.

12.2. Persistence and degradability

Persistence and degradability	The product is expected to be biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential	Not expected to bioaccumulate.

12.4. Mobility in soil

Mobility	The product is water soluble and may spread in water systems.

12.5. Results of PBT and vPvB assessment

PBT assessment results	PBT assessment has not been performed.
vPvB evaluation results	vPvB assessment has not been performed.

12.6. Other adverse effects

Other adverse effects / Remarks	Do not allow to enter into sewer, water system or soil.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Specify the appropriate methods of disposal	Disposed of as hazardous waste by approved contractor. The waste code (EWC-Code) is intented as a guide. The code must be chosen by the user, if the use differs from the one mentioned below.
Product classified as hazardous waste	No
EWC waste code	EWC: 160505 gases in pressure containers other than those mentioned in 16 05 04 EWC: 150111 metallic packaging containing a dangerous solid porous matrix (for example asbestos), including empty pressure containers

SECTION 14: Transport information

14.1. UN number

ADR / RID / ADN	1950
IMDG	1950
ICAO/IATA	1950

14.2. UN proper shipping name

ADR / RID / ADN	AEROSOLS
IMDG	AEROSOLS
ICAO/IATA	AEROSOLS, NON-FLAMMABLE

14.3. Transport hazard class(es)

IMDG	2.2
ICAO/IATA	2.2

14.4. Packing group

Comments	Not relevant.

14.5. Environmental hazards

IMDG Marine pollutant	No

14.6. Special precautions for user

EmS	F-D, S-U

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Additional information.

Additional information.	Not relevant.

SECTION 15: Regulatory information

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

References (laws/regulations)	Regulation (EC) No 1907/2006 on the registration, evaluation, authorization and restriction of chemicals (REACH Regulation), with later amendments. Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures (CLP-regulation) with later amendments. Bekendtgørelse nr.844 – Aerosoler. Norwegian regulations on waste. no. 930/2004, from the Ministry of Environment. Dangerous Goods regulations

15.2. Chemical safety assessment

Chemical safety assessment performed	No

SECTION 16: Other information

Supplier's notes	The information contained in this SDS must be made available to all those who handle the product.
List of relevant H-phrases (Section 2 and 3).	H302 Harmful if swallowed. H226 Flammable liquid and vapour. H314 Causes severe skin burns and eye damage. H229 Pressurised container: May burst if heated. H319 Causes serious eye irritation.
Classification according to Regulation (EC) No 1272/2008 [CLP / GHS]	Aerosol 3; H229;
Key literature references and sources for data	Suppliers Safety data sheet dated: 24.09.2010
Abbreviations and acronyms used	EC50: The effective concentration of substance that causes 50% of the maximum response EWC = European Waste Code (a code from the EU's common classification system for

	waste) LC50: Median concentration lethal to 50% of a test population. LD50: Lethal dose, is the amount of a substance given to a group of test animals, which causes the death of 50%. PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative
Information which has been added, deleted or revised	Sections being revised since previous version: 1-16 (all)