| Product | Stove Buster |
|----------------------|----------------------------|
| Revision date | 1 st April 2020 |
| Revision | 1 |



Safety Data Sheet (SDS)

available.

Section 1: Identification of the substance/preparation and of the company/undertaking

1.1 Product identifier

| Product name | Stove Buster |
|-----------------------|----------------|
| Synonyms, Trade names | No information |

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

| Identified uses | Cleaning agent. |
|----------------------|--------------------|
| Uses advised against | Any other purpose. |

1.3 Details of the supplier of the safety data sheet

| Supplier | Emerald Clover Ltd. Drumduffy Drumkeeran Co. Leitrim N41 T998 |
|--------------------------------|--|
| | Ireland Tel: 071 96 48008 |
| Contact person | info@emeraldclover.ie |
| 1.4 Emergency telephone number | |
| Emergency telephone | Emergency medical information: 8am-10pm (seven days) contact National Poisons Information Centre, Beaumont Hospital, Dublin 9. Tel 01 8092566 |

Section 2: Hazards identification

2.1 Classification of the substance or mixture

| Classification (EC 1272/2008) | |
|-------------------------------|---|
| Physical and chemical hazards | Not classified |
| Human health | Skin Corr. 1A - H314, Eye Dam. 1 - H318 |
| Environment | Not classified |

2.2 Label elements

Contains

Label in accordance with (EC) no. 1272/2008

Potassium hydroxide



Signal word

Hazard statements

Precautionary statements

H314 Causes severe skin burns and eye damage.

Prevention

Danger

P280 Wear protective gloves/ protective clothing/eye protection/face protection. **Response**

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. P310 Immediately call a POISON CENTER or doctor/physician. **Disposal** P501 Dispose of contents/ container to licensed waste disposal agent.

2.3 Other hazards

Store locked up. Keep out of reach of children.

Section 3: Composition/identification of ingredients

3.1 Substance

Not applicable.

3.2 Mixtures

| Name | Product identifier | Reg. EU 1272/2008 | % |
|--------------------------|---|--|--------|
| IPotassium hydroxide | CAS-No.: 1310-58-3 EC No.: 215-181-3 | Acute Tox 4 - H302, Skin Corr. 1A - H314 | 10-30% |
| Isodium vylenesulnhonate | CAS-No.: 1300-72-7 EC No.: 215-090-9 | Eye Irrit.2A - H319 | 1-10% |

The full text for all hazard statements are displayed in section 16.

```
Composition comments
```

The data shown are in accordance with the latest EC Directives.

Section 4: First aid measures

4.1 Description of first aid measures

| General information | Provide general first aid, rest, warmth and fresh air. As a general rule, in case of doubt or if symptoms persist, always call a doctor. Seek medical attention for all burns and eye injuries, regardless how minor they may seem. First aid personnel must be aware of own risk during rescue. |
|---------------------|--|
| Inhalation | Remove casualty from exposure ensuring one's own safety whilst doing so. If breathing becomes bubbly, have the casualty sit and provide oxygen if available. If not breathing, give artificial respiration. Get medical attention if necessary. |
| Ingestion | Provide fresh air, warmth and rest, preferably in comfortable upright sitting position. Rinse mouth thoroughly. If conscious, give half a litre of water to drink immediately. Get medical attention immediately. Never give anything by mouth to an unconscious person. |
| Skin contact | If this product contacts the skin, immediately flush the affected area with plenty of clean running water for at least fifteen (15) minutes. If the product penetrates the clothing, promptly remove the contaminated clothing or shoes, and flush the affected area as described. Do not attempt to remove any material bonded to skin. Seek medical attention immediately. |
| Eye contact | If the product contacts the eyes, immediately flush eyes with plenty of clean running water for at least fifteen (15) minutes, lifting the upper and lower eyelids occasionally. Avoid contaminating unaffected eye. Remove contact lenses if worn. Get prompt medical attention. Continue to rinse. |

4.2 Most important symptoms and effects, both acute and delayed

| General information | The severity of the symptoms described will vary dependant of the concentration and the length of exposure. |
|---------------------|---|
| Inhalation | There may be irritation of the throat with a feeling of tightness in the chest. Nausea and stomach pain may occur. |
| Ingestion | Corrosive burns may appear around the lips. Nausea and stomach pain may occur. There may be vomiting. There may be bleeding from the mouth or nose. |
| Skin contact | Irritation or pain may occur at the site of contact. Blistering may occur. Progressive ulceration will occur if treatment is not immediate. Severe burns may occur. |
| Eye contact | There may be severe pain. The eyes may water profusely. Corneal burns may occur. May cause permanent damage. |

4.3 Indication of any immediate medical attention and special treatment needed

| Notes to the physician | Immediate effects can be expected after short-term exposure. Provide general supportive |
|------------------------|---|
|------------------------|---|

measures and treat symptomatically.

| Section 5: Fire-fighting measures | |
|---|---|
| 5.1 Extinguishing media | |
| Extinguishing media | Use fire-extinguishing media appropriate for surrounding materials. Foam or abundant water |
| Unsuitable extinguishing media | spray. None noted. |
| 5.2 Special hazards arising from the sub | stance or mixture |
| Hazardous combustion products Unusual fire & explosion hazards | Combustion products may include and are not limited to: Potassium oxides. Fire may cause irritating or toxic fumes. Flammable hydrogen can form when the product contacts metals. |
| Specific hazards | Very flammable gas (hydrogen) may be formed on contact with metals. Water used for fire extinguishing, which has been in contact with the product, may be corrosive. |
| 5.3 Advice for firefighters | |
| Special fire fighting procedures | Avoid breathing fire vapours. Keep up-wind to avoid fumes. Ventilate closed spaces before entering them. If possible, fight fire from protected position. Containers close to fire should be removed immediately or cooled with water if safe to do so. |
| Protective equipment for firefighters | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents. |
| Section 6: Accidental release measures | |

$\underline{6.1\ Personal\ precautions,\ protective\ equipment\ and\ emergency\ procedures}$

| Personal precautions For emergency responders | Provide adequate ventilation. In case of inadequate ventilation, use respiratory protection. Eliminate all sources of ignition. Wear protective clothing as described in Section 8 of this safety data sheet. Evacuate and ventilate area. Do not touch or walk through spilled material. Avoid inhalation of vapours and contact with skin and eyes. Read and follow manufacturer's recommendations. Follow safe handling advice and personal protective equipment recommendations for normal use of product. |
|--|---|
| 6.2 Environmental precautions | |
| Environmental precautions | Keep out of drains, municipal sewers, open bodies of water and water course. |
| 6.3 Methods and material for containme | ant and cleaning up |
| Spill clean up methods | Ventilate and evacuate the area. Eliminate all ignition sources. DO NOT touch spilled material! Wear necessary protective equipment. Stop leak if possible without risk. Cover drains. In case of a large scale of spill, dyke area with sand to stop the spill spreading. Absorb spillage with non-combustible, absorbent material - sand. Ensure that waste and contaminated materials are collected and removed from the work area as soon as possible in a suitably labelled container. |
| 6.4 Reference to other sections | |
| Reference to other sections | See section 1 for emergency contact. For personal protection, see section 8. For waste disposal, see section 13. |
| | |

Section 7: Handling and storage

7.1 Precautions for safe handling

Handling

Use proper personal protection when handling. Provide good ventilation. Avoid inhalation of vapours and contact with skin and eyes. Avoid inhalation of vapours and mists. Avoid prolonged or repeated contact.

Avoid contact with metals. Do not handle broken packages without protective equipment. Do not use contact lenses. Do not mix with other chemicals. Wash thoroughly after handling.

7.2 Conditions for safe storage, including any incompatibilities

| Storage precautions | Store in tightly closed original container in a cool, dry and well-ventilated place. Keep away from incompatible materials (see section 10). |
|---|--|
| Storage class | Corrosive storage. |
| 7.3 Specific end use(s) Specific end use(s) Usage description | The identified uses are in section 1 of this Safety Data Sheet. Use only according to directions. |

Section 8: Exposure controls/Personal protection

8.1 Control parameters

| Component | STD | TWA (8 Hrs) | STEL (1 | 15mins) | Notes |
|---------------------|-----|-------------|---------|---------------------|-------|
| Potassium hydroxide | OEL | | | 2 mg/m ³ | |
| Potassium hydroxide | WEL | | | 2 mg/m ³ | |

Ingredient comments

Ireland, Occupational Exposure Limits 2016. Workplace Exposure Limits Guidance Note EH40/2005.

8.2 Exposure Controls



| Engineering measures | Provide adequate ventilation, including appropriate local extraction, to ensure that the |
|-----------------------|--|
| | defined occupational exposure limit is not exceeded. Where necessary use lighting and |
| | electrical equipment designed for use in atmospheres where flammable vapours are present, |
| | and which can direct static electricity by grounding equipment. |
| Respiratory equipment | Use respirators and components tested and approved under appropriate government |
| | standards such as CEN (EU). Consult manufacturer for specific advice. |
| | Where risk assessment shows air-purifying respirators are appropriate a full face respirator |
| | conforming to EN 143 should be used, and suitable respirator cartridges as a backup to |
| | engineering controls. Suggested filter type: Type B-P2 or B-P3. |
| Hand protection | Where hand contact with the product may occur the use of gloves approved to relevant |
| | standards (e.g. Europe: EN374) is recommended. Suggested material: PVC. Neoprene. |
| | Natural rubber. Butyl rubber. |
| | Breakthrough time: >480 minutes. Consult manufacturer for specific advice. Use proper |
| | glove removal technique (without touching glove's outer surface) to avoid skin contact with |
| | this product. |
| Eye protection | Use equipment for eye protection tested and approved under appropriate government |
| | standards such as EN 166(EU). Wear tightly fitting safety goggles. |
| Other protection | Alkali resistant protective clothing. Protective clothing should be selected based on the task |
| | being performed and the risks involved and should be approved by a specialist before |
| | handling this product. The selected clothing must satisfy the European norm standard EN |
| | 943. |
| Hygiene measures | DO NOT SMOKE IN WORK AREA! Wash hands at the end of each work shift and before |
| | eating, smoking and using the toilet. Wash promptly if skin becomes wet or contaminated. |
| | Promptly remove any clothing that becomes contaminated. When using do not eat, drink or |
| | smoke. |
| Process conditions | Ensure that eye flushing systems and safety showers are located close by in the work place. |
| | |

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| <u>9.1</u> | Information on basic physical and c | <u>nemical properties</u> |
|------------|---|---|
| | Appearance Colour Odour | Liquid. Red No information available. |
| | Odour threshold - lower | No information available. |
| | Odour threshold - upper | No information available. |
| | pH-Value, Conc. Solution | No information available. |
| | pH-Value, Diluted solution | No information available. |
| | Melting point | No information available. |
| | Initial boiling point and boiling range | No information available. |
| | Flash point | No information available. |
| | Evaporation rate | No information available. |
| | Flammability state | No information available. |
| | Flammability limit - lower(%) | No information available. |
| | Flammability limit - upper(%) | No information available. |
| | Vapour pressure | No information available. |
| | Vapour density (air=1) | No information available. |
| | Relative density | 1.11g/cm ³ @ 20.00 °C |
| | Bulk density | No information available. |
| | Solubility | Soluble. |
| | Decomposition temperature | No information available. |
| | Partition coeffiicient; n- Octanol/Water | No information available. |
| | Auto ignition temperature (°C) | No information available. |
| | Viscosity | No information available. |
| | Explosive properties | Not classified as explosive. |
| | Oxidising properties | No information available. |
| <u>9.2</u> | Other information | |
| | Molecular weight | No information available. |
| | Volatile organic compound | No information available. |
| | Other information | None noted. |
| | | |

Section 10: Stability and reactivity

10.1 Reactivity

Reactivity

In contact with metals generates hydrogen gas, which together with air can form explosive mixtures Reactions may occur with strong oxidizing agents and acids.

10.2 Chemical stability

Stability

Stable under normal temperature conditions and recommended use.

10.3 Possibility of hazardous reactions

| Hazardous reactions Hazardous polymerisation Polymerisation description | For information on hazardous reactions see section 10.1. No information available. Unknown. |
|---|---|
| 10.4 Conditions to Avoid Conditions to avoid | Keep away from heat, sparks and open flame. |
| 10.5 Incompatible materials Materials to avoid | Oxidizing agents. Acids. Flammable or organic materials. Metals. Halogens. |

10.6 Hazardous decomposition products

Hazardous decomposition products When heated, toxic and corrosive vapours/gases may be formed

Section 11: Toxicological information

11.1 Information on toxicological effects

| Toxicological information | No toxicological information for the overall finished product. |
|--|--|
| Acute toxicity (Oral LD50) Acute toxicity (Dermal LD50) Acute toxicity (Inhalation LD50) | No information available. No information available. No information available. |
| Serious eye damage/irritation | Causes serious eye damage. |
| Skin corrosion/irritation | No information available. |
| Respiratory sensitisation Skin sensitisation | No information available. No information available. |
| Germ cell mutagenicity | No information available. |
| Carcinogenicity | No information available. |
| Specific target organ toxicity - Sing STOT - Single exposure Specific target organ toxicity - Repo STOT - Repeated exposure | No information available. |
| | |
| Inhalation | There may be irritation of the throat with a feeling of tightness in the chest. Nausea and |
| Inhalation Ingestion | stomach pain may occur. Corrosive burns may appear around the lips. Nausea and stomach pain may occur. There |
| | stomach pain may occur. Corrosive burns may appear around the lips. Nausea and stomach pain may occur. There may be vomiting. There may be bleeding from the mouth or nose. Irritation or pain may occur at the site of contact. Blistering may occur. Progressive |
| Ingestion | stomach pain may occur. Corrosive burns may appear around the lips. Nausea and stomach pain may occur. There may be vomiting. There may be bleeding from the mouth or nose. Irritation or pain may occur at the site of contact. Blistering may occur. Progressive ulceration will occur if treatment is not immediate. Severe burns may occur. There may be severe pain. The eyes may water profusely. Corneal burns may occur. May |
| Ingestion Skin contact | stomach pain may occur. Corrosive burns may appear around the lips. Nausea and stomach pain may occur. There may be vomiting. There may be bleeding from the mouth or nose. Irritation or pain may occur at the site of contact. Blistering may occur. Progressive ulceration will occur if treatment is not immediate. Severe burns may occur. |
| Ingestion Skin contact Eye contact | stomach pain may occur. Corrosive burns may appear around the lips. Nausea and stomach pain may occur. There may be vomiting. There may be bleeding from the mouth or nose. Irritation or pain may occur at the site of contact. Blistering may occur. Progressive ulceration will occur if treatment is not immediate. Severe burns may occur. There may be severe pain. The eyes may water profusely. Corneal burns may occur. May cause permanent damage. When handling waste, consideration should be made to the safety precautions applying to |

| Name | LD50 oral | LD50 dermal | LD50 inhalation |
|-------------------------|-------------------|---------------------|-----------------|
| Potassium hydroxide | 273.00mg/kg Rat | | |
| sodium xylenesulphonate | >7000.00mg/kg Rat | >200.00mg/kg Rabbit | |

Section 12: Ecological information

| 12.1 Toxicity | |
|---|--|
| Acute toxicity - Fish | No information available. |
| Acute toxicity - Aquatic invertebrat | t es No information available. |
| Acute toxicity - Aquatic plants | No information available. |
| Acute toxicity - Microorganisms | No information available. |
| Chronic toxicity - Fish | No information available. |
| Chronic toxicity - Aquatic | No information available. |
| invertebrates | |
| Chronic toxicity - Aquatic plants | No information available. |
| Chronic toxicity - Microorganisms | No information available. |
| Ecotoxicity | The product is not classified as environmentally hazardous. However, this does not exclude |
| | the possibility that large or frequent spills can have a harmful or damaging effect on the |
| | environment. The product may affect the acidity (pH-factor) in water with risk of harmful |
| | effects to aquatic organisms. |
| Eco toxilogical information | No ecological toxicity available on the overall finished product. |
| | |
| 12.2 Persistence and degradability | |
| Degradability | Biodegradable. |
| Biological oxygen demand | No information available. |
| Chemical oxygen demand | No information available. |
| | |
| 12.3 Bioaccumulative potential | |
| Bioaccumulative potential | No bioaccumulation potential. |
| Bioaccumulation factor | No information available. |
| Partition coeffiicient; n- | No information available. |
| Octanol/Water | |
| | |
| 12.4 Mobility in soil | |
| Mobility | Soluble in water. |
| u u u u u u u u u u u u u u u u u u u | |
| 12.5 Results of PBT and vPvB assessme | <u>ent</u> |
| | |

Results of PBT and vPvB assessment The product does not contain any PBT or vPvB substances.

UN3267

12.6 Other adverse effects

UN no. (IATA)

Other adverse effects

No information available.

| Name | Acute toxicity (Fish) | Acute toxicity (Aquatic invertebrates) | Acute toxicity (Aquatic plants) |
|-------------------------|-----------------------|--|---------------------------------|
| sodium xylenesulphonate | | EC50 48 Hours >40.30mg/l Daphnia magna | |

| Section 13: Disposal considerations | |
|-------------------------------------|--|
| Waste management | When handling waste, consideration should be made to the safety precautions applying to handling of the product. |
| 13.1 Waste treatment methods | |
| Disposal methods | Dispose of waste and residues in accordance with local authority requirements, and in accordance with all local, national and international regulations. |
| Section 14: Transport information | |
| 14.1 UN number | |
| UN no. (ADR) | UN3267 |
| UN no. (IMDG) | UN3267 |

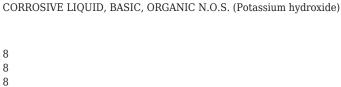
<u>14.2 UN proper shipping name</u>

ADR proper shipping name IMDG proper shipping name IATA proper shipping name

14.3 Transport hazard class(es)

| ADR class | |
|------------|--|
| IMDG class | |
| IATA class | |

Transport labels



CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (Potassium hydroxide)

CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (Potassium hydroxide)



14.4 Packing group

| ADR/RID/ADN packing group IMDG packing group IATA packing group | II II II | |
|---|----------------|--|
| 14.5 Environmental hazards | | |
| ADR | No | |
| IMDG | No | |
| IATA | No | |
| 14.6 Special precautions for user | | |

| EMS | F-A, S-B |
|--------------------------------|----------|
| Emergency action code | A3 A803 |
| Hazard no. (ADR) | 80 |
| Tunnel restriction code | (E) |
| | |

14.7 Transport in bulk according to annex II of MARPOL73/78 and the IBC code

Not applicable.

Section 15: Regulatory information

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

| 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, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments. The UN Globally Harmonized System (GHS) Safety Data Sheet format (Annex IV) is implemented as Annex II of REACH EU No 453/2010 of 20th May 2010 amending regulation (EC) No 1907/2006. |
|---|
| 2016 Code of Practice for the Chemical Agents Regulations in accordance with section 60 of the Safety, Health and Welfare at Work Act 2005 (No. 10 of 2005). |
| Workplace Exposure Limits Guidance Note EH40/2005. |
| No chemical safety assessment has been carried out. |
| |

Section 16: Other information

| General information | This Safety Data Sheet is in accordance with Reach Regulation (EC) No 453/2010 |
|--------------------------|--|
| Revision comments | This is a first issue. |
| Revision date | 1 st April 2020 |
| Revision | 1 |
| Safety data sheet status | Approved. |

Hazard statements in full

| H302 | |
|------|--|
| H314 | |
| H319 | |

Harmful if swallowed. Causes severe skin burns and eye damage. Causes serious eye irritation.

Disclaimer

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. Since the user's working conditions are not known by us, the information supplied on this safety data sheet is based on our current level of knowledge and on national and community regulations. The mixture must not be used for other uses than those specified in section 1 without having first obtained written handling instructions. It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations. The information in this safety data sheet must be regarded as a description of the safety requirements relating to the mixture and not as a guarantee of the properties thereof.