SAFETY DATA SHEET according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2015/830

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

1.1 Product identifier:

Trade name: Defender OPP Disinfectant Smoke
UFI code: 4M60-U0UE-W00R-A223

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

Relevant identified uses of the substance or mixture:
Disinfectant Smoke Generator (FU)
For professional use only

Uses advised against:
Do not use for purposes other than those stated in “Recommended uses”

1.3 Details of the supplier of the safety data sheet

Lodi UK Limited
Unit 104, Potter Space
7 Kidderminster Road
Cutnall Green
Droitwich
WR9 0NS
UNITED KINGDOM
Tel: +44 (0) 1384 404242 (office hours only)
Emergency Tel: +44 (0) 1384 404242 (office hours only)
E-mail: sales@lodi-uk.com
www. https://www.lodi-uk.com

1.4 Emergency telephone number

Emergency information services / official advisory body:
Healthcare professionals: National Poisons Information Service (NPIS) – 0344 892 0111
General public:
England - Dial 111 to reach NHS 111 (24- hour service)
Scotland - Dial 111 to reach NHS 24 (24- hour service)
Wales - Dial 111 or 0845 4647 to reach NHS Direct (24- hour service).

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) 1272/2008 (CLP) and its amendments
Acute Tox. 4 H302; Skin Corr.1. H314; Eye Dam 1 H318; Skin Sens. 1 H317; Carc 2. H351; Aquatic Acute. 1. H400; Aquatic Chronic 1, H410
Additional Information: For full text of Hazard and EU Hazard statements: see section 16.

2.2 Label elements

Labeling according to Regulation (EC) 1272/2008 (CLP) and its amendments
Hazard pictograms:

Signal word: **DANGER**

Hazard statements:

H302	**Harmful if swallowed**
H314	**Causes severe skin burns and eye damage**
H318	Causes serious eye damage
H317	**May cause an allergic skin reaction**
H351	**Suspected of causing cancer**
H400	Very toxic to aquatic life
H410	**Very toxic to aquatic life with long lasting effects**

Precautionary statements:

P201	**Obtain special instructions before use**
P260	**Do not breathe dust / smoke**
P264	Wash skin thoroughly after handling
P270	Do not eat, drink or smoke when using this product
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	**Wear protective gloves/eye protection.**
P330+P301+P312+P331	IF SWALLOWED: Call a POISON CENTRE/doctor if you feel unwell. Rinse Mouth. Do NOT induce vomiting.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P363	Wash contaminated clothing before reuse.
P305+P351+P338+P310	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
P308+P313	**IF exposed or concerned: Get medical advice/attention**
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P273	Avoid release to the environment
P391	Collect spillage
P405	Store locked up
P501	**Dispose of contents/container in accordance with local regulations**

2.3 Other hazards

The mixture does not contain any vPvB substance (vPvB = very persistent, very bioaccumulative) or is not included under Annex XIII of the Regulation (EC) 1907/2006 (< 0,1 %).

The mixture does not contain any PBT substance (PBT = persistent, bioaccumulative, toxic) or is not included under Annex XIII of the Regulation (EC) 1907/2006 (< 0,1 %).

May form explosible dust-air mixture if dispersed. Ignites readily. Product burns without a flame to give a dense white harmful smoke.
Does not contain any substances with endocrine disrupting properties.

SECTION 3: Composition/information on ingredients

3.1 Substance

Not applicable.

3.2 Mixture

Chemical name	Concentration	CAS No	EC No Index No Reg No	Classification	SCL /M-Factor /ATE	REACH Registration Number	WEL /OEL
Biphenyl-2-ol (syn: o-Phenylphenol)	30% w/w	90-43-7	201-993-5	Skin Corrosion 1; H314	M Factor (Acute &	-	No

				Eye Damage 1; H318 Skin Sens. 1B, H317 Carc. 2; H351 Aquatic acute 1; H400, Aquatic chronic 1; H410;	Chronic) = 1		
Potassium chlorate	10-20% w/w	3811-04-9	223-289-7	Ox. Liq.1. H271; Acute Tox.3. H301;		01-2119494917-18-xxxx	No
Talc	35-45%	14807-96-6	238-877-9	Not classified (substance with a workplace exposure limit)		Reach exempt	Yes

SECTION 4: First aid measures

4.1 Description of first aid measures

Show this safety data sheet to the doctor in attendance.
Rescuers should take suitable precautions to avoid becoming casualties themselves.
In case of contact with skin:
Take off contaminated clothing and wash it before re-use.
Wash affected area with plenty of soap and water.
If skin irritation occurs: Get medical advice/attention
In case of contact with eyes:
If substance has got into eyes, immediately wash out with plenty of water for several minutes. Irrigate eyes thoroughly whilst lifting eyelids.
Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention
In case of ingestion:
Rinse mouth with water (do not swallow).
Give 200-300mls (half pint) water to drink.
Do NOT induce vomiting. Get medical advice/attention.
In case of inhalation:
If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
If unconscious, place person in recovery position
Apply artificial respiration only if patient is not breathing but do not use mouth to mouth resuscitation.
Get immediate medical advice/attention.

4.2 Most important symptoms and effects, both acute and delayed

Contact with eyes
- Causes serious eye damage

Contact with skin
- Causes severe skin burns
- May cause an allergic skin reaction

Ingestion
- Harmful if swallowed
- May cause stomach pain.

Inhalation
- May cause shortness of breath.
- May cause coughing and tightness of chest

4.3 Indication of any immediate medical attention and special treatment needed
Risk of methemoglobinemia. Not to be treated with methylthionine. Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media
Suitable extinguishing media Sand/earth, foam, water spray, carbon dioxide.

Unsuitable extinguishing media Do not use water jets. Dry agent extinguishers are unsuitable and should not be used.

5.2 Special hazards arising from the substance or mixture
- Ignites readily.
- Contains an oxidising agent; may assist combustion.
- May form explosive dust/air mixtures.
- Gives off irritating or toxic fumes (or gases) in a fire.
- Decomposition products may include oxygen, carbon oxides, nitrogen oxides.

5.3 Advice for firefighters
- Collect contaminated fire extinguishing water separately. This MUST not be discharged into drains. Prevent fire extinguishing water from contaminating surface or ground water.
- Special protective equipment: Wear self-contained breathing apparatus (SCBA). Wear full protective clothing including chemical protection suit.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
- No action shall be taken involving any personal risk or without suitable training.
- Only trained and authorised personnel should carry out emergency response.
- Avoid formation of dust.
- Shut off all ignition sources
- Personal precautions for non-emergency personnel: Avoid breathing dust/smoke; Avoid contact with skin and eyes; Wear protective clothing as per section 8; Wash thoroughly after handling; Eyewash bottles should be available.
- Personal precautions for emergency responders: Evacuate the area and keep personnel upwind; Wear chemical protection suit; Wear self-contained breathing apparatus (SCBA).

6.2 Environmental precautions
Avoid release to the environment
Do not allow to enter public sewers and watercourses.
If contamination of drainage systems or water courses is unavoidable, immediately inform appropriate authorities.

6.3 Methods and material for containment and cleaning up
- Do not absorb spillage in sawdust or other combustible material.
- Avoid formation of dust.
- Shut off all ignition sources.
- Take action to prevent static discharges.
- Do not allow to enter public sewers and watercourses.

- Small spills Wipe up spillage with damp absorbent cloth or towel.
Wash spill site with water and detergent.

- Large spills Evacuate the area and keep personnel upwind.

Damp down to avoid dust generation.
Absorb spillage in earth or sand.
Sweep or shovel-up spillage and remove to a safe place.
Place in appropriate container.
Seal containers and label them.
Remove contaminated material to safe location for subsequent disposal.
Ventilate the area and wash spill site after material pick-up is complete.

6.4 Reference to other sections

For further information refer to sections 7, 8 & 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

- Read the label before use.
- Prevent formation of dust.
- Take precautionary measures against static discharges.
- Where the operator is unable to leave the area, wear suitable respiratory protection.
- Avoid contact with skin and eyes.
- Do not eat, drink or smoke when using this product.
- Keep away from heat and sources of ignition during storage and after ignition.
- Avoid contact with acids and alkalis.
- Avoid release to the environment.
- Take off contaminated clothing.
- Contaminated work clothing should not be allowed out of the workplace.
- Contaminated clothing should be laundered before re-use.

– Eyewash bottles should be available.

7.2 Conditions for safe storage, including any incompatibilities

- Shelf life: 2 years when stored in the original unopened sales container at ambient temperatures.
- Store in a cool, dry well-ventilated place. Keep container tightly closed.
- Keep away from combustible material.
- Keep out of reach of children.

7.3 Specific end use(s)

Disinfectant smoke generator (FU)

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Regulatory Reference:- GBR United Kingdom EH40/2005 Workplace exposure limits.
Workplace Exposure Limits (WEL) for talc: UK 1 mg/m³

8.2 Exposure controls

- Selection and use of personal protective equipment should be based on a risk assessment of exposure potential.

Respiratory protection

- If the operator is unable to leave the area immediately after lighting the product, then respiratory protection must be worn.

-Where a reusable half mask respirator is required, use EN 140, with gas/vapour filter EN 14387 type ABEK, or EN 405; EN 1827 and EN 143 particle filter.
-Where a full face mask respirator is required, use EN 136, with gas/vapour filter EN 14387 type ABEK and particle filter EN 143.

Skin protection
-Wear suitable protective clothing.
-Wear protective gloves. The selected protective gloves have to satisfy the specifications of EU

Directive 2016/425 and standard EN 374. The selection of a suitable glove depends on work conditions and whether the product is present on its own or in combination with other substances. Breakthrough time is dependent on the characteristics of the brand of glove used and the supplier should be consulted. PVC or rubber gloves are recommended.

Eye/face protection
-Wear goggles giving complete eye protection approved to standard EN 166.

- Hygiene measures
Contaminated clothing should be laundered before re-use.
Do not eat, drink or smoke when using this product.
Eyewash bottles should be available.
- Environmental exposure controls
Avoid release to the environment.
Do not empty into drains
A self-container product unlikely to be released unless packaging significantly damaged.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	Powder in a metallic tin
Colour	Off-white
Odour	Phenolic
Melting point	Not applicable
Boiling point	Not applicable
Flammability	Powder not flammable. Smoke may be flammable
Flash point	Does not flash
Auto-ignition temperature	Not available
Decomposition temperature	Not available
pH	Not available
Solubility	Partly soluble in/with water
Partition coefficient n-octanol/water (Log Kow)	Not available
Vapour pressure:	Not available
Particle characteristics	Not available
Minimum Ignition temp	Not available.
Minimum Ignition	Not available
Oxidizing properties	Contains an oxidising agent; may assist combustion.
Energy Explosive properties	Not applicable

9.2 Other information

Oxidizing properties: Contains an oxidising agent; may assist combustion.
Relative self-ignition temperature for solids 335.6°C
No additional information available.

SECTION 10: Stability and reactivity

10.1 Reactivity

No hazardous reactions know if used for its intended purpose.

10.2 Chemical stability

Considered stable under normal conditions.

10.3 Possibility of hazardous reactions
- Reacts with combustible material when in use.
- Reacts with acids liberating toxic gas (chlorine).

10.4 Conditions to avoid
- Avoid formation of dust.
- Keep away from heat and sources of ignition after ignition.
- Keep away from static electricity during preparation and use.

10.5 Incompatible materials
- Incompatible with strong acids.
- Incompatible with alkalis (strong bases).
- Incompatible with halogenated substances.

10.6 Hazardous decomposition products
- Decomposition products may include oxygen, carbon oxides, nitrogen oxides.

SECTION 11: Toxicological information

11.1 Information on toxicological effects
(a) Acute Toxicity:
Harmful if swallowed.
Classification based on calculation and concentration thresholds.

(b) Skin corrosion/irritation:
Causes severe burns.
Classification based on calculation and concentration thresholds.

(c) Serious eye damage/irritation:
Causes serious eye damage.
Classification based on calculation and concentration thresholds.

(d) Respiratory or skin sensitisation:
May cause an allergic skin reaction.
Classification based on calculation and concentration thresholds

(e) Germ cell mutagenicity:
Based on available data, the classification criteria are not met.

(f) Carcinogenicity:
Suspected of causing cancer.
Classification based on calculation and concentration thresholds.

(g) Reproductive toxicity:
Based on available data, the classification criteria are not met.

(h) STOT-single exposure:
Based on available data, the classification criteria are not met.

(i) STOT-repeated exposure:
Based on available data, the classification criteria are not met.

(j) Aspiration hazard:
Based on available data, the classification criteria are not met.

- Contact with eyes
Causes severe eye damage.

- Contact with skin
Causes severe skin burns
May cause an allergic skin reaction.

- Ingestion
Can form methaemoglobin in the blood, causing cyanosis
Harmful if swallowed
May cause stomach pain.

- Inhalation
Causes shortness of breath.
May cause coughing and tightness of chest

11.2 Information on other hazards:
No further information.

SECTION 12: Ecological information

12.1. Toxicity
- Very toxic to aquatic life with long lasting effects.
- Classification based on calculation and concentration thresholds.

12.2. Persistence and degradability
- Potassium chlorate Biodegradable

12.3. Bioaccumulative potential
- Chlorate is converted to chlorite in plants, which accumulates in cells until toxic concentrations are reached, when the plant dies.

12.4. Mobility in soil
Partially soluble in water.

12.5. Results of PBT and vPvB assessment
- Not a PBT according to REACH Annex XIII
- Not a vPvB according to REACH Annex XIII

12.6. Other adverse effects
Does not contain any substances with endocrine disrupting properties
No further information available

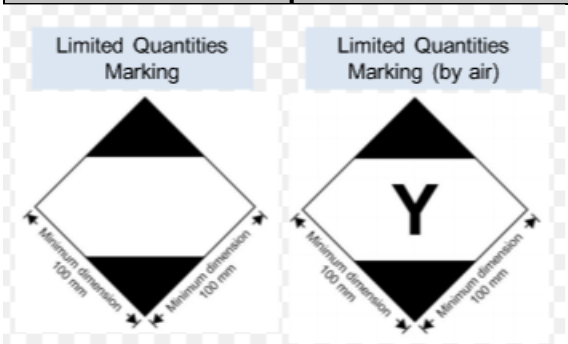
SECTION 13: Disposal considerations

13.1 Waste treatment methods
- Do not discharge into drains or the environment, dispose to an authorised waste collection point
- Dispose of product and packaging in accordance with national waste regulations.
- Unburned material and/or its container must be disposed of as hazardous waste. Completely burned generators will only contain inert powder residue and can be disposed of in normal waste.

13.2 Classification
- The waste must be identified according to the List of Wastes (2000/532/EC).
- Hazardous Property Code(s): HP 6 Acute Toxicity; HP 7 Carcinogenic; HP 8 Corrosive; HP 13 Sensitising; HP 14 Ecotoxic.

SAFETY DATA SHEET according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2015/830

SECTION 14: Transport information



14.1. UN number
UN No: 1759

14.2. UN proper shipping name
- Proper Shipping Name: CORROSIVE SOLID, N.O.S., (2 BIPHENYL-2-OL MIXTURE).

14.3. Transport hazard class(es)
Hazard class: 8

14.4. Packing group
-III

14.5. Environmental hazards
Marine pollutant

14.6. Special precautions for user
No additional precautions

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code
Not applicable

14.8 Road/Rail (ADR/RID)
- Proper Shipping Name: CORROSIVE, SOLID, N.O.S., (2 BIPHENYL-2-OL MIXTURE)
- ADR UN No.: 1759
- ADR Hazard Class: 8
- ADR Packing Group: III
- Tunnel Code: 3 (E)

14.9 Sea (IMDG)
- Proper Shipping Name: CORROSIVE SOLID, N.O.S., (2 BIPHENYL-2-OL MIXTURE)
- IMDG UN No.: 1759
- IMDG Hazard Class: 8
- IMDG Pack Group.: III

14.10 Air (ICAO/IATA)
- Proper Shipping Name: CORROSIVE SOLID, N.O.S., (2 BIPHENYL-2-OL MIXTURE)
- ICAO UN No.: 1759
- ICAO Hazard Class: 8
– ICAO Packing Group: III

SECTION 15: Regulatory information

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

- This safety data sheet is provided in compliance with REACH Regulation (EC) No 1907/2006 (as amended by Regulation (EU) 2020/878) and UK REACH.
- The GB Classification, Labelling and Packaging Regulation (GB CLP) applies in Great Britain.
- Regulation (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP Regulation) applies in Europe.
- The COSHH Regulations apply in the UK.
- Talc ($Mg_3H_2(SiO_3)_4$) is listed in Annex III of REACH as # Suspected carcinogen: IARC monographs classified the substance as carcinogenic or probably/possibly carcinogenic; carcinogen according to ISSCAN
- Restrictions on use according to Annex XVII to REACH Regulation: Not applicable.

15.2 Chemical safety assessment

- A REACH chemical safety assessment has been carried out for some of the ingredients in this product.

SECTION 16: Other information

This safety data sheet has been prepared in compliance with Regulation (EC) 1272/2008 as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567 and Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758.

Information contained in this data sheet is accurate to the best of our knowledge and belief and is given in good faith. It is intended to describe our product from the point of view of safety requirements and is not intended to guarantee any particular properties.

Sources of data: Information from published literature and supplier safety data sheets.

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) No 1272/2008 as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567:

Acute Tox.4. H302 Classification based on calculation and concentration thresholds
Skin Sens. 1B. H317; Classification based on calculation and concentration thresholds
Skin Corrosion.1. H314; Classification based on calculation and concentration thresholds
Eye Damage. 1, H318; Classification based on calculation and concentration thresholds
Carc. 2. H351; Classification based on calculation and concentration thresholds
Aquatic Acute 1; H400: Classification based on calculation and concentration thresholds
Aquatic Chronic 1, H410 Classification based on calculation and concentration thresholds

Text not given with phrase codes where they are used elsewhere in this safety data sheet:
- H271: May cause fire or explosion; strong oxidiser
- H301: Toxic if swallowed

Abbreviations and acronyms:
- CAS: Chemical Abstracts Service
- DNEL: Derived No-Effect Level
- EC: European Community
- EC50: Effective Concentration, 50%
- GHS: Globally Harmonised System
- IARC: International Agency for Research on Cancer
- IC50: Half-maximal inhibitory concentration
- LC50: Lethal Concentration, 50%
- LD50: Lethal Dose, 50%
- NOAEC: No observed adverse effect concentration
- NOAEL: No observed adverse effect level
- NOEC: No observed effect concentration
- OEL: Occupational Exposure Limit

- PBT: Persistent, Bioaccumulative and Toxic
- PNEC: Predicted No-Effect Concentration
- REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals
- vPvB: very Persistent and very Bioaccumulative
- WEL: Workplace Exposure Limit