SECTION 1 : IDENTIFICATION OF MIXTURE AND OF THE COMPANY

1.1 Product identifier **FUMISPORE® OPP**

1.2 Relevant identified uses of the mixture and used advised against

Identified uses : Aerial disinfection of surfaces in empty premises.

Uses advised against : Treat away from humans and animals
Treat without food/feed present.

1.3 Details of the supplier of the safety data sheet

Manufacturer : LCB
P.A.E ACTIPARC
Rue des acacias
01190 BOZ
FRANCE
Tel. +33 (0)3.85.36.81.00
Fax +33 (0)3.85.36.01.28

SDS Information : fds@lcbfoodsafety.com

1.4 Emergency telephone number ORFILA (INRS) : +33 (0)1.45.42.59.59
Base Nationale des Produits et Compositions : +33 (0)3.83.32.36.36 (24h/24h)

SECTION 2 : HAZARD IDENTIFICATION

2.1 Classification of the mixture

According the regulation (EC) n°1272/2008 : Oxidising solids 3 H272
Eye irritant 2 H319
Skin iriritant 2 H315
STOT SE 3 H335
Aqua chronic cat. 2 H411

2.2 Label elements

Hazard pictogram(s) :

Signal word : WARNING

Hazard statement(s) : H272 May intensify fire; oxidiser.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H411 Toxic to aquatic life with long lasting effects..

Precautionary statement(s) - Prevention : P260 Do not breathe fume
P220 Keep away from combustible materials
P273 Avoid release to the environment
P280 Wear protective gloves/eye protection/face protection

Precautionary statement(s) - Intervention : P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+ 313 If eye irritation persists: Get medical advice/attention.
P304+340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312 Call a POISON CENTER or a doctor if you feel unwell.
P302+352 IF ON SKIN: Gently wash with plenty of soap and water

P501 Dispose of contents/container to hazardous or special waste collection point in accordance with the national legislation.

2.3 Others hazards Release of nitrogen oxide, nitrogen dioxide, carbon monoxide, ammonia and Hydrogen cyanide , during the smoke-generating reaction.
In the presence of green plants, risk of phytotoxicity.
This mixture does not contains any substance responding to criteria for classification as PBT or vPvB in accordance with Annex XIII of Regulation (EC) No 1907/2206.
This mixture does not contains any substance included in the candidate list to annex XIV of (EC) regulation n°1907/2006.

SECTION 3 : COMPOSITION/ INFORMATION ON INGREDIENTS

3.1 Substance: not concerned

3.2 Mixture

Description of the mixture: biocidal Powder

substances	%	registration Nr Reg. EC 1907/2006	INDEX Nr	EC Nr	CAS Nr	Classification Reg.(EC)1272/2008
Ammonium nitrate	>20	01-2119490981-27	-	229-347-8	6484-52-2	eye irr. 2 H319 ox. solid 3 H272
2-phenylphenol	10-20	01-2119511183-53	604-020-00-6	201-993-5	90-43-7	skin irrit. 2 H315 Eye irrit . 2 H 319 STOT SE 3 H335 aquatic acute 1 H400 aquatic chronic H410

Complete H-phrases : see section 16

SECTION 4 : FIRST AID MEASURES

4.1 Description of first aid measure

Immediate treatment	:	If the person is unconscious, have a first-aid provider place the individual in a safe lateral position and monitor breathing
In case of inhalation of fumes	:	Wear IPE require paragraph 8 and remove the person from the smoke fumes and have him/her breath fresh air. In case of persistent respiratory track irritation, contact a physician or emergency medical technicians, who will decide what to do.
In case of skin contact	:	Wash the skin with water; remove the dirty clothing and wash it
In case of contact with eyes	:	Wash with an eye wash or else with drinking water; if an eye irritation, pain or trouble appear and persist for more than an hour, consult an ophthalmologist
In case of ingestion	:	Do not have the patient drink, eat or vomit and contact a physician or emergency medical technicians, who will decide what to do.
In case of burning	:	In case of superficial burns (blotches), cool off the wound by indirectly running cold water on it for 15 minutes

4.2 Most important symptoms and effects, both acute and delayed

Symptoms and acute effects

By inhalation with smoke	:	In case of extended exposure and/or a large overdosing : irritation of respiratory mucous membrane, coughing, respiratory difficulties under stress, tachycardia ; vomiting ; dizziness
By inhalation with powder	:	Coughing and respiratory difficulties.
By eye contact	:	with smoke Irritation of the ocular mucous membranes, watering, and even conjunctiva with powder: Slight temporary irritation, watering
by massive ingestion of powder	:	Irritation of the buccal mucous membrane, digestive tube, vomiting, diarrhea, abdominal pain, digestive troubles
By skin contact with powder	:	Emaciation and itching
Symptoms and delayed effects	:	Extended chronic exposure may lead to emphysema.

4.3 Indication of any immediate medical attention and special treatment needed

Immediate treatment	:	symptomatic treatment
Contraindications	:	not available
Antidotes	:	not available
On-site equipment	:	Eye wash and portative shower

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media	:	Water (with recommended retention of fire extinguishing water) ABC multi-purpose powder
Unsuitable extinguishing media	:	Emulsifying foams or organic stabilizers, sand

5.2 Special hazards arising from the mixture

The smoke-generating reaction is exothermic
Powder may stoke up combustion in a fire

5.4 Advice for fire-fighter

In case containers are extinguished or cooled with water, avoid discharging the water into the environment.
Self-contained breathing equipment

SECTION 6 : ACCIDENTAL RELEASE MEASURES

6.1 Personal precaution, protective equipment and emergency procedures

Precautions	:	In case of important release: Take away the staff not equipped with individual equipment of protection Aerate or ventilate to avoid dust formation Remove sources of ignition, sparks and any hot spot
Equipment	:	Wear gloves and an anti-dust mask or a nose/mouth half mask equipped with a P type filter (dust) Wear protective clothes.

6.2 Environmental precautions

Avoid spilling the product on the ground or pouring it in a stream or in a sink or in a sewer

6.3 Methods and material for containment and cleaning up

Containment techniques	:	none
Clean-up procedures	:	Collect the product by sucking up and then eliminating it in compliance with the regulations in force.
Never use	:	none

6.3 Reference to other section

Information about handling: see section 7
Information about Individual Protective Equipment: see section 8
Information about waste: see section 13

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Prevention of fire	:	Do not use the product directly to carpeting or linoleum, or in the immediate vicinity of cloth, curtains or other; keep any readily inflammable or combustible material outside a radius of 1.50 m from the product. Do not use in extremely dusty rooms (opaque dust cloud) or in the presence of inflammable vapour. In livestock rooms, keep the straw outside a radius of 1.50 m from the product; place the doses in a secure stainless steel container. If the room to be treated is in an EXAT- explosive atmosphere- zone, evaluate the reality of the room's EXAT character and, if necessary, temporarily suspend the EXAT character of the room by appropriate measure(s) during the usage time of the product Leave the room before the smoke spreads
Safe handling	:	Place the doses on a heat and fire resistant support (earthenware) Close all the room's exits after starting of the treatment. Indicate at the accesses to the room that it is currently being treated and prohibit access. Do not enter the room while the treatment is being applied. If it is absolutely necessary to enter the room during the treatment, the full individual protection equipment is required (see §8) If smoke is visible from the outside, inform the neighbours to avoid frightening them with the sight of the smoke. If necessary, particularly in a sensitive industrial or urban area, inform the fire department about the date and time of the treatment. Make sure that the doses used are cold before disposing of them.

Hygiene measures : Don't drink, eat or fume during utilisation
Wash your hand after use
Don't eat with work clothes

7.2 Conditions for safe storage, including any incompatibilities

Storage measure : Store in correctly ventilated and temperate rooms maintained at ambient temperature (optimum 15°C - 25°C) and protected from humidity and away from any ignition source.
If possible, store in an area fitted with a collection tank for fire extinguishing water.

Incompatibilities Store away from food and feedstuffs in the original packaging kept closed.
Store away inflammable products

7.3 Specific end use(s): none

SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Workplace exposure limits in the powder: none

Workplace exposure limit in fumes :

		Ammonia CAS n°7664-41-7		carbon monoxide CAS n°630-08-0		nitrogen monoxide CAS n° 10102-43-9		nitrogen dioxide CAS N°10102-44-0		Hydrogen cyanide CAS n° 74-90-8	
	WEL	mg/m³	ppm	mg/m³	ppm	mg/m³	ppm	mg/m³	ppm	mg/m³	ppm
France	8 hrs	7	10	55	50	30	25	-	-	2	2
	15 min	14	20	-	-	-	-	6	3	10	10
UE	8 hrs	14	20	23	-	-	-	-	0.2	-	-
	15 min	36	50	117	-	-	-	-	-	-	-
USA-OSHA	8 hrs	35	50	50	55	30	25	-	-	11	10
	15 min	-	-	-	-	-	-	9	5	-	-

Biological exposure indicators : None

Recommended monitoring procedures : Control of the work areas atmosphere after treatment:
After aeration/ventilation, the atmosphere of the rooms returns to normal
In the case of confined rooms which cannot be sufficiently aired, control ammonia concentration.

DNEL :

Ammonium Nitrate
CAS n°6484-52-2

Workers :
DNEL(long-term / oral): Not available
DNEL(long-term / dermal) : 21.3 mg/kg/day
DNEL(long-term / inhalation): 37.6 mg/m³

Generale population:
DNEL(long-term / oral) : 12.8 mg/kg/day
DNEL(long-term / dermal) : 12.8 mg/kg/day
DNEL(long-term / inhalation): 11.1 mg/m³

Consommer :
DNEL(long term / oral/systemic) : 0.75 mg/kg/day
DNEL(short/term / dermal/local) : 28.85 mg/kg bw/day
DNEL(short-term / inhalation/systemic): 2.3 mg/m³
DNEL(long-term / inhalation/systemic): 2.6 mg/m³

8.2 Exposure controls

Appropriate engineering controls : Indicate the treatment in progress at each entrance
Prohibit access to the premises during treatment
At the end of the application period, mechanically ventilate the work areas for a minimum of 1 hour in order to replenish the ambient air to 90%

Eyes/face protection : Wear protective glasses in case of dust (for example after a spreading) (standard EN 166)

Skin protection : If it is absolutely necessary to enter the room during the treatment, wear skin protection clothes

Hand protection : If the powder has to be touched directly with hands, wear unpierced PVC gloves (Usage limit: occasional contact; after utilization, discard dirty gloves without rinsing them off).

Respiratory protection	:	No individual protection equipment is required to apply the product under normal conditions. If it is absolutely necessary to enter the room during the treatment, wear a face mask equipped with an ABEK (class 2) + P (class 3) type filter. Stay in the room only for a very short time (1 minute maximum). In case there is a risk of inhaling the powder, for example, after an accidental spreading, wear an anti-dust mask or a half mask equipped with a P type class 2 ″dust″ filter (filter usage limit : breakdown time ; consult the filter supplier ; see also the standard EN 141)
Thermal hazard	:	To remove doses after utilization, wear thermal gloves.
Environmental exposure controls	:	none

SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	:	Fine and fluid powder (floury aspect)		
Color	:	White slightly iridescent		
Odour	:	Irritating odour		
Odour threshold	:	Not available		
pH à 1% (in water)	:	6.3		
Melting point/freezing point	:	Non applicable		
Boiling point	:	Non applicable		
Flash point	:	Non applicable		
Evaporation rate	:	Non applicable		
Flammability	:	Non inflammable (ONU N.1)		
Upper explosive limits Lower explosive limits	: :	Not available		
Vapour pressure	:	Not available		
Bulk density	:	Pour bulk density Tap bulk density	: :	0.79 g/mL 0.61 g/mL
Solubility	:	In water In other solvents	: :	Partial (water-soluble components) Not available
Partition Coefficient n-octanol/eau	:	2-phenylphenol	:	3
Auto-ignition temperature	:	246°C (CEE A16)		
Decomposition temperature	:	Not available		
Viscosity	:	Non applicable		
Explosive properties	:	Non explosive (ONU serial 2)		
Oxidising properties	:	Oxidising (ONU O.1)		

9.2 Others information

Class of dust explosion	:	St1

SECTION 10 : STABILITY AND REACTIVITY

10.1 Reactivity

No risk of dangerous reactivity of the product in its original packaging and in normal storage conditions and handling.
The principle of the implementation of the product is based on an exothermic reaction

10.2 Chemical stability Product stable under normal handling and storage conditions

10.3 Possibility of hazardous reaction No known hazardous reactions known under normal handling and storage conditions

10.4 Conditions to avoid Product stable under normal handling and storage conditions.

10.5 Incompatible materials No known incompatible materials with the powder
During treatment: in rare cases, in presence of moisture or in interaction with other chemicals, 2-phenylphenol may cause a yellow or pink coloration on the surfaces, especially on polymer materials.

10.6 Hazardous decomposition products Release of nitrogen oxide, nitrogen dioxide, carbon monoxide, ammonia and hydrocyanic acid, during the smoke-generating reaction.

SECTION 11 : TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity	:	No experimental data available on the mixture
2-phenylphenol	:	LD_{50} (oral) rat : 2980 mg/kg LD_{50} (cutaneous) rat: >5000 mg/kg LC_0 (inhalation vapor) rat : >36 mg/m^3/4h
Ammonium nitrate	:	DL_{50} (oral) rat : 2950mg/kg DL_{50} (cut) rat : >5000 mg/kg CL_{50} (inhalation) rat : > 88.8 mg/l
Irritation	:	Irritant for eyes and skin
Corrosivity	:	The product is not corrosive
Sensitisation	:	The product does not include any sensitizing ingredient
Repeates dose toxicity	:	No experimental data available In case of chronic exposure to the smoke, emphysema may appear
Carcinogenicity	:	The product does not include any carcinogen- ingredient known
Mutagenicity	:	The product does not include any mutagen- ingredient known
reproductive toxicity	:	The product does not include any ingredient toxic for reproduction known

SECTION 12 : ECOLOGICAL INFORMATION

12.1 Toxicity No experimental data available.

2-phenylphenol	:	CL_0 (fish)	:	4 mg/l (96 hours)
		CE_{50} (algae)	:	1.35 mg/l (72 hours)
		CE_{50} (daphnia magna)	:	2.7 mg/l (48 hours)
		NOEC	:	0.009 mg/l (21 days)
Ammonium nitrate	:	CL_{50} poisson/48h	:	74-102 mg/l
		CE_{50} Daphnia magna	:	555 mg/l
		CE_{50} Algae	:	83 mg/l

12.2 Persistence and degradability

2-phenylphenol : Biodegradability: > 75% (closed bottle method)/28 days

12.3 Bioaccumulative Potential

2-phenylphenol : LogPow : 3
BCF : 22

12.4 Mobility in soil not available

12.5 Results of PBT and vPvB assessment not available

12.6 Other adverse effects not available

SECTION 13 : DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Unused product	:	The powder is classified as hazardous waste. Dispose in accordance with national regulations or Community legislation, by a certified company
Packaging/combustion residues	:	The combustion residues are not classified as hazardous waste classification. Packaging may be eliminate as non-hazardous waste.
Particular precautions	:	None
EC regulatory provisions	:	*European commission Decision 2000/532/EC of 03 May 2000 establishing a list of wastes*

SECTION 14 : TRANSPORT INFORMATION

ADR/RID/IMDG

14.1. UN number UN 1479

14.2. UN proper shipping name Oxidizing solid n.o.s (ammonium nitrate)

14.3. Transport hazard class(es) 5.1

14.4. Packing group III

14.5. Environmental hazards Dangerous for environment

IMDG Marine pollutant : No

14.6. Special precautions for user Not concerned

IMDG security : F-A, S-Q

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code : Not concerned

SECTION 15 : REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the mixture European regulatory

Biocidal product according council directive 98/8/CE
Council Directive 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work.
Council Directive 89/391/EEC of 12 June 1989 on the introduction of measures to encourage improvements in the safety and health of workers at work
Regulation (EC) No 396/2005 modified by Regulation (EC) No 304/2010 of 9 April 2010 including 2-phenylphenol to annex II from 01 January 2011.

Regulation (EC) n°2037/2000 on substances that deplete the ozone layer)	: not concerned
Regulation (EC) n°850/2004 on persistent organic pollutants	: not concerned
Directive 96/82/CEE (SEVESO II)	: not concerned

Restriction

Regulation (EC) n°1907/2006 (REACH) :

• Authorisation (title VII regulation (EC) n°1907/2006)	: not concerned
• Restriction (title VIII regulation (EC) n°1907/2006)	: ammonium nitrate (n°58)
Regulation (EC) n°689/2008 concerning the export and import of dangerous chemicals	: not concerned

15.2 Chemical safety assessment : not available

SECTION 16 : OTHER INFORMATION

Last revision	:	1st version
Legend to abbreviations and acronyms	:	LD: Lethal dose CL: Lethal concentration CE: Efficacy concentration PNEC: Predicted No Effect Concentration DNEL: derived no-effect level PBT: Persistent Bioaccumulative Toxic vPvB : very Persistent and very bioaccumulative
Literature reference	:	Physicochemical trials and the exposure risk study conducted on the product Safety data sheets on the ingredients INRS material safety data sheet and INRS documentary notes
R phrases and H phrases describe in section 3	:	H272 : May intensify fire; oxidizer H315 : Causes skin irritation. H319 : Causes serious eye irritation H335 : May cause respiratory irritation. H400 : Very toxic to aquatic life.
Advice on training appropriate for workers	:	Safety training for biocidal chemical products

"IMPORTANT: This safety data sheet is additional to the technical operating instructions but does not replace them. All the information and recommendations are given in good faith and accurately represent the current state of knowledge. Users are responsible for verifying and validating beforehand the use of the product under the required conditions and for reporting any observations. Users are further alerted to the potential risks incurred if a product is used for purposes other than those for which it is intended. This sheet does not in any way exempt the user from knowing and applying all the texts regulating his activity. He will be solely responsible for taking the necessary precautions when using the product. The statutory regulations mentioned are simply intended to assist the user in fulfilling his obligations with regard to the use of a dangerous product. This list must not be regarded as exhaustive. It does not exempt the user from ensuring that he is not subject to other obligations because of texts not mentioned, which govern storage and use of the product for which he solely is responsible."