SECTION 1 : IDENTIFICATION OF MIXTURE AND OF THE COMPANY

1.1 Product identifier **FUMAGRI® OPP**

1.2 Relevant identified uses of the mixture and used advised against

Identified uses : Aerial disinfection of empty premises for breeding, incubators and feedstuff areas.

Uses advised against : EU : Don't use for plant protection uses covered by regulation (EC)1107/2009
Treat away from humans and animals
Treat without food/feed present.

1.3 Details of the supplier of the safety data sheet

Manufacturer :
LCB FOOD SAFETY – Groupe Kersia
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

NZ supplier :
HYGIENE TECHNOLOGIES LTD,
28 Rangitane Road,
Whakatu,
Hastings 4180,
NEW ZEALAND
Tel. +64 6 876 4111
info@hygienetech.co.nz

SDS Information : regulatory@kersia-group.com

1.4 Emergency phone number

Emergency direct numbers (24/24 – 7/7):

Asia, Pacific	(+) 65 3165 2217
New Zealand National Poisons Centre (24/7)	0800 POISON (0800 764 766)

SECTION 2 : HAZARD IDENTIFICATION

2.1 Classification of the mixture

According the regulation (EC) n°1272/2008 :
Eye irritation cat. 2 H319
Skin irritation cat. 2 H315
STOT SE cat. 3 H335
Aquatic acute cat.1 H400
Aquatic chronic cat. 1 H410

2.2 Label elements

Hazard pictogram(s) :



Signal word : WARNING

Hazard statement(s) :
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H410 Very toxic to aquatic life with long lasting effects..

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

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.
Contains	:	2-phenylphenol

2.3 Others hazards

Risk of burns when removing doses before complete cooling.
Release of nitrogen oxide, nitrogen dioxide, carbon monoxide, ammonia and Hydrogen cyanide, during the smoke-generating reaction.
If powder is dispersal in aquatic environment, risk of local acute destruction for aquatic fauna.
In case of treatment in an area containing an uncovered aquarium or fishpond, risk of toxicity for fish. 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

EC No	CAS No	INDEX No	Registration No Reg. EC 1907/2006	Substances	%	Classification Reg.(EC)1272/2008
229-347-8	6484-52-2	-	01-2119490981-27	Ammonium nitrate	>20	eye irr. 2 H319 ox. solid 3 H272
201-993-5	90-43-7	604-020-00-6	01-2119511183-53	2-phenylphenol	10-20	skin irrit. 2 H315 eye irrit . 2 H 319 STOT SE 3 H335 aquatic acute 1 H400 aquatic chronic 1 H410 M=1

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, remove the person from the smoke fumes, and have him/her breathe 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
In case of fire, risk of emission of toxic gases in particular nitrogen oxides and carbon oxides

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 on a carpet or a linoleum, or in the immediate vicinity of cloth, curtains or other combustible material; keep any readily inflammable or combustible material outside a distance 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.
Packaging	:	Store in the original packaging kept closed.
Incompatibilities	:	Store away from food and feedstuffs
Storage area	:	If possible, store in an area fitted with a collection tank for fire extinguishing water.

7.3 Specific end use(s): none

SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Workplace exposure limits in the powder: none

		Dust respirable		dust inhalable		2-phenylphenol CAS n°90-43-7	
		mg/m³	ppm	mg/m³	ppm	mg/m³	ppm
France	8h	**5**	**-**	**10**	-	-	-
	Short term	-	-	-	-	-	-
Germany (DFG)	8h	-	-	-	-	5*	-
	Short term	-	-	-	-	5*	-

*inhalable fraction

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
EU	8h	14	20	23	20	2.5	2	0.96	0.5	1	0.9
	VLCT	36	50	117	100	-	-	1.91	1	5	4.5
USA-OSHA	8 hrs	35	50	50	55	30	25	-	-	11	10
	15 min	-	-	-	-	-	-	9	5	-	-

Ref. GESTIS database

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/PENC : Not available

8.2 Exposure controls

Appropriate engineering controls : Indicate the treatment in progress at each entrance.
Keep away all combustible material.
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 and gloves.

Hand protection : If the powder has to be touched directly with hands, wear unpierced PVC or neoprene 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 (UNO N.1)		
Upper explosive limits Lower explosive limits	: :	Not available		
Vapour pressure	:	Not available		
Bulk density	:	Pour bulk density Tap bulk density	: :	0.61 g/mL 0.79 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 (EEC A16)		
Decomposition temperature	:	Not available		
Viscosity	:	Non applicable		
Explosive properties	:	Non explosive (UNO serial 2)		
Oxidising properties	:	Non oxidising (UNO 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 of mixture

No experimental data available on the mixture

ETA_{mix}	:	ETA_{oral} >5000 mg/kg

Acute toxicity of components

2-phenylphenol	:	LD_{50} (oral) rat :	2733 mg/kg
		LD_{50} (cutaneous) rat:	>5000 mg/kg
		LC_0 (inhalation vapor) rat :	>36 mg/m^3/4hrs

Ammonium nitrate	:	LD_{50} (oral) rat : 2950mg/kg LD_{50} (cut) rat : >5000 mg/kg LC_{50} (inhalation) rat : > 88.8 mg/l
Skin corrosion/irritation	:	Based on its components, the mixture is classified as irritant for skin
Serious eye damage/irritation	:	Based on its components, the mixture is classified as irritant for eyes
Respiratory or skin sensitisation	:	The product does not include any sensitizing components
Germ cell mutagenicity	:	The product does not include any component known as mutagenic
Carcinogenicity	:	The product does not include any component known as carcinogenic
Reproductive toxicity	:	The product does not include any component known as toxic for reproduction
STOT-single exposure		Based on its components, the mixture may produce a respiratory irritation
STOT-repeated exposure	:	Not available
Aspiration hazard	:	Not available

Effects on health

By Inhalation of smoke	:	In case of extended exposure and/or a large overdosing: irritation of respiratory mucous membrane, coughing.
By skin contact	:	May cause skin dryness due to prolonged contact
By eye contact	:	With smoke Irritation of the ocular mucous membranes, watering, and even conjunctiva With powder: Slight temporary irritation, watering

SECTION 12 : ECOLOGICAL INFORMATION

12.1 Toxicity No experimental data available on the mixture

2-phenylphenol	:	LC_{50} fish Oncorhynchus mykiss /96h : 4 mg/L EC_{50} algae /72h : 1.35 mg/L EC_{50} daphnia magna /48h : 2.7 mg/L NOEC Daphnia magna /21 jours : 0.009 mg/L:
Ammonium nitrate	:	LC_{50} fish/48hrs : 74-102 mg/L EC_{50} Daphnia magna : 555 mg/L EC_{50} Algae : 83 mg/L

12.2 Persistence and degradability

2-phenylphenol	:	75% 28 days (OECD 301D)

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	:	Do not discharge into drains, sewers or waterways. Dispose of in original packaging Dispose of the product as hazardous waste in accordance with applicable national or local regulations, by an approved company.

Packaging/combustion residues	:	The combustion residues are not classified as hazardous waste. Keep the label on the container. Disposal of packaging and combustion residues as non-hazardous waste in accordance with the relevant national or Community regulations Dispose of the rinsed packaging by an approved recycling system. Do not discharge ashes or the rinsing water in the environment.
Particular precautions	:	none
EC regulatory provisions	:	*European commission Decision 2000/532/EC of 03 May 2000 establishing a list of wastes* *Directive 2008/98/EC of 19 November 2008 on waste*

SECTION 14 : TRANSPORT INFORMATION

ADR/RID/IMDG

Assigned Special Provision SP375 in ADR and the chapter 2.10.2.7 of IMDG, materials carried under UN3077 or UN3082 in either single or inner packaging of 5L or less for liquids or 5kg or less for solids, are not subject to any other provisions of ADR and IMDG, provided the packagings meet the general packaging provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8..

For any packaging over 5kg, the below disposition are applicable.

14.1. UN number		UN 3077
14.2. UN proper shipping name		ENVIRONMENTALLY HAZARDOUS SUBSTANCE SOLID n.o.s (2-phenylphenol)
14.3. Transport hazard class(es)		9
14.4. Packing group		III
14.5. Environmental hazards		Dangerous for the environment
IMDG Marine pollutant	:	Yes
14.6. Special precautions for user		Not concerned
IMDG security	:	F-A, S-F

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

SECTION 15 : REGULATORY INFORMATION

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

Regulation (UE) n°528/2012 of 22 May 2012 concerning the making available on the market and use of biocidal products
Regulation (EC) N° 396/2005 concerning the making available on the market and use of biocidal products
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°1005/2009 on substances that deplete the ozone layer) : not concerned
Regulation (EC) n°850/2004 on persistent organic pollutants : 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°649/2012 concerning the export and import of dangerous chemicals : not concerned

Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors :
This product is regulated by Regulation (EU) 2019/1148: all suspicious transactions, and significant disappearances and thefts should be reported to the relevant national contact point.

15.2 Chemical safety assessment : not available

SECTION 16 : OTHER INFORMATION

Last revision	:	§ 1.3 / 1.4
Legend to abbreviations and acronyms	:	LD: Lethal dose LC: Lethal concentration EC: 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
H phrases described 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. H410 : Very toxic to aquatic life with long lasting effects.
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."