



SAFETY DATA SHEET (EC) regulation n°1907/2006 annex II modified	Date issued : 30/01/2012
FUMAGRI HA	Date of last revision : 30/01/2012

1. IDENTIFICATION OF MIXTURE AND OF THE COMPANY

Product identifier	:	FUMAGRI HA
Relevant identified uses of the mixture	:	Bactericidal and fungicidal smoke-producing powder Disinfection of empty premises and equipment for breeding and feedstuff areas (Product Type 3&4)
Uses advised against	:	Treat away from humans and animals Treat without food/feed present.
Details of the supplier of the safety data sheet	:	<u>Supplier:</u> LCB 71260 LA SALLE (F) Tél. :+33 (0)3.85.36.81.00 Fax.:+33 (0)3.85.36.01.28 <u>SDS Information</u> : fds@lcb.fr
Emergency telephone number	:	France : ORFILA (INRS) : +33 (0)1.45.42.59.59 Base Nationale des Produits et Compositions : +33 (0)3.83.32.36.36 (24h/24h)

2. HAZARD IDENTIFICATION

2.1 Classification of the mixture	The product is NOT CLASSIFIED according to the meaning of the directive 1999/45/CE
2.2 Label elements	
Hazard symbol	: none
Risk phrases	: none
Safety phrases	: S23.4: Do not breathe fumes. S26 : In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
2.3 Others hazards	Release of nitrogen oxide, nitrogen dioxide, carbon monoxide, ammonia and cyanhydric acid, during the smoke-generating reaction. In the presence of green plants, risk of phytotoxicity.

3. COMPOSITION/ INFORMATION ON INGREDIENTS

Substances presenting a health or environmental hazard:

components	%	Enregistrement Nr Regl. EC 1907/2006	INDEX Nr	EC Nr	CAS Nr	Classification directive 67/548/EEC	Classification CLP Regulation EC1272/2008
Glycolic acid	1-5	01-2119485579-17	-	201-180-5	79-14-1	C-R34 Xn-R22	Skin Corr. 1B H314 Acute Tox. 4 H332 Eye Dam. 1 H318
calcium carbonate	1-5	01-2119486795-18	-	207-439-9	471-34-1	Xi-R36/38	Cut. irrit. Cat. 2 H315 Eye irrit. Cat. H319
Ammonium nitrate	>20	01-2119490981-27	-	229-347-8	6484-52-2	Xi R36 O R8	eye irr. 2 H319 ox. solid 3 H272

<u>Substances with occupational exposure limit values</u>	: see §8
<u>PBT or vPvB substances</u>	: none
<u>Substances included in the candidate list to annex XIV of (EC) regulation n°1907/2006</u>	: none
<u>Complete R-phrases and H-phrases</u>	: see section 16



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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 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	:	Irritation of the buccal mucous membrane, digestive tube, vomiting, diarrhea, abdominal pain, digestive troubles
By skin contact with powder	:	Emaciation and itching
<u>Symptoms and delayed effects</u>	:	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

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	:	Water (with recommended retention of fire extinguishing water) ABC multi-purpose powder
Unsuitable extinguishing media	:	Emulsifying foams or organic stabilizers, sand
Special hazards arising from the mixture	:	The smoke-generating reaction is exothermic possible release of toxic vapour Powder may stoke up combustion in a fire
Advice for fire-fighter	:	In case containers are extinguished or cooled with water, avoid discharging the water into the environment. Self-contained breathing equipment.



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6. ACCIDENTAL RELEASE MEASURES

Personal precaution, protective equipment and emergency procedures	:	In case of important release: Take away the staff not equipped with individual equipment of protection Wear gloves and an anti-dust mask or a nose/mouth half mask equipped with a P type filter (dust) Wear protective clothes. Aerate or ventilate to avoid dust formation Remove sources of ignition, sparks and any hot spot
Environmental precautions	:	Avoid spilling the product on the ground or pouring it in a stream or in a sink or in a sewer
Methods and material for containment and cleaning up	:	Containment techniques : not necessary Clean-up procedures : Collect the product by sucking up and then eliminating it in compliance with the regulations in force Never use : none
Reference to other section	:	Information about handling: see section 7 Information about Individual Protective Equipment: see section 8 Information about waste: see section 13

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Safe handling	:	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
Instruction of use	:	Disconnect the smoke detectors and stop the ventilation 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

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

7.3 Specific end use(s): none



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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

(mg/m ³)	calcium carbonate inhalable	calcium carbonate respirable
United Kingdom / 8h	10	4

Exposure limit values of gas released:

mg/m ³	United Kingdom		European union	
	8h	15 min	8h	15 min
ammonia	18	25	14	36
carbon monoxide	-	-	23	117
nitrogen dioxide	-	-	0.2ppm	-

- 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 with a DRAEGER type pump.
- DNEL /PNEC ammonium nitrate** : 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

8.2 Exposure controls

- Appropriate engineering controls** : During the usage of the product, move all inflammable materials away.
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%
- Individual protection measures** :
- Eyes/face protection : No individual protection equipment is required to apply the product under normal conditions.
Wear glasses in case of release of dust.
- Skin/hand protection: If the powder has to be touched directly with hands, wear unpierced rubber gloves
(Usage limit: occasional contact; after utilization, discard dirty gloves without rinsing them off).
If it is absolutely necessary to enter the room during the treatment, wear skin protection clothes
- 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



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9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	:	Fine and fluid powder (floury aspect) - White-beige (off white)
Color	:	White-beige (off white)
Odour	:	Slight non-aggressive odour
Odour threshold	:	Not available
pH (1% in water)	:	4,6 - 5,7
Melting point/freezing point	:	non applicable
Flash point	:	Non applicable
Evaporation rate	:	Non applicable
Inflammability	:	Non- inflammable (EEC A10)
Upper explosive limits:		Not available
Lower explosive limits:		Not available
Vapour pressure	:	Not available
Vapour density	:	Non applicable
Relative density		
Tap density	:	0.65
Bulk density	:	0.49
Solubility		
In water	:	Partial (water-soluble components)
In other solvents	:	Not available
Partition Coefficient n-octanol/eau Glycolic acid:	:	-1.11
Auto-ignition temperature	:	213,8°C (EEC A16)
Decomposition temperature	:	Not available
Viscosity	:	Not applicable
Explosive properties	:	Non- explosible (EEC A14)
Oxidising properties	:	Non-oxidising (EEC A17)
9.2 Others informations	:	Class of dust explosion : St1 Minimum ignition temperature in the air 510°C

10. STABILITY AND REACTIVITY

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
Chemical stability	:	Product stable under normal usage and storage conditions
Possibility of hazardous reaction	:	No known hazardous reactions known under normal handling and storage conditions
Conditions to avoid	:	Product stable under normal usage and storage conditions
Incompatible materials	:	No known incompatible materials
Hazardous decomposition products	:	Release of nitrogen oxide, nitrogen dioxide, carbon monoxide, ammonia and cyanhydric acid, during the smoke-generating reaction.



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11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity	:	No experimental data available.
Glycolic acid	:	LD ₅₀ (oral) rat : 1938 mg/kg CL ₅₀ (inhalation) rat/4h : > 5.2 mg/l
Calcium carbonate	:	LD ₅₀ (oral) rat : 6450 mg/kg/bw LD ₅₀ (cut) rat : 500 mg/kg/bw
Ammonium nitrate	:	DL50 (oral) rat : 2950mg/kg DL50 (cut) rat : >5000 mg/kg CL50 (inhalation) rat : > 88.8 mg/l
Eyes irritation	:	moderately irritant for eyes (OCDE n°405)
Corrosivity	:	The product is not corrosive for skin
Sensitisation	:	The product does not include any sensitizing ingredient
Repeated dose toxicity	:	No experimental data available In case of chronic exposure to the smoke, emphysema may appear.
CMR effects	:	The product does not include any CMR- ingredient known

12. ECOLOGICAL INFORMATION

Toxicity	:	No experimental data available.
Glycolic acid	:	CL ₅₀ minnow/96h: 164 mg/l CE ₅₀ daphnia/48h : 141 mg/l
Calcium carbonate	:	CE ₅₀ poisson/96h: >42 mg/l CE ₅₀ Daphna mania/48h: >42 mg/l CE ₅₀ Algae/72h: >42 mg/l
Ammonium nitrate	:	CL ₅₀ poisson/48h: 74-102 mg/l CE ₅₀ Daphnia magna: 555 mg/l CE ₅₀ Algae: 83 mg/l
Persistence and degradability Glycolic acid	:	Biodégradation : 89.6% in 7 days
Bioaccumulative Potential	:	not available
Mobility in soil	:	not available
Results of PBT and vPvB assessment	:	not available
Other adverse effects	:	not available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods	:	Dispose in accordance with national regulations or Community legislation, by a certified company The powder and combustion residues are not classified as hazardous waste classification.
Particular precautions	:	None
EC regulatory provisions	:	<i>European commission Decision 2000/532/EC of 03 May 2000 establishing a list of wastes</i>

14. TRANSPORT INFORMATION

ADR/RID/IMDG/OACI-IATA :

Product not classified in accordance with international regulations relating to the transport of dangerous goods.



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15. REGULATORY INFORMATION

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

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) n°2037/2000 on substances that deplete the ozone layer) :	not concerned
Regulation (EC) n°850/2004 on persistent organic pollutants	not concerned
Regulation (EC) n°689/2008 concerning the export and import of dangerous chemicals:	non concerned
Directive 96/82/CEE (SEVESO II) :	not concerned
Regulation (EC) n°1907/2006 (REACH) :	
Authorisation (title VII regulation (EC) n°1907/2006):	not concerned
Restriction (title VIII regulation (EC) n°1907/2006):	not concerned

15.2 Chemical safety assessment: not available

16. OTHER INFORMATION

Last revision:	1 st 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 the INRS material safety data sheet ED 98 INRS documentary notes ED 984 - ND 2113 - ND 2065 - ND 2245
Method of evaluating used for classification:	: Method OCDE n°405 : eye irritation Method B.5 de la directive 2004/73/CE
List of relevant R phrases and H phrases describe in section 3	: R8 : Contact with combustible material may cause fire. R22 : Harmful if swallowed. R36 : Irritating to eyes. R34 : Causes burns R36/38 : Irritating to eyes and skin H272 : May intensify fire; oxidizer H314 : Causes severe skin burns and eye damage H315 : Causes skin irritation H318 : Causes serious eye damage. H319 : Causes serious eye irritation H332 : Harmful if inhaled.
Advice on training appropriate for workers	: Safety training for biocidal chemical products
Classification according UE regulation n° 1272/2008	: not available

"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."