FUMAGRI HA
Code: 034U3

Safety Data Sheet compliant with Regulation (EU) 2020/878

Version 7.1.0
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SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Trade name: FUMAGRI HA

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

Use of the product

ULTRADIFFUSION
STOCK BREEDING
BACTERICIDAL, YEASTICIDAL, FUNGICIDAL, VIRUCIDAL DISINFECTION OF EMPTY PREMISES, MATERIAL AND EQUIPMENTS BY AERIAL DIFFUSION FOR PROCESSING, STORING AND TRANSPORTING IN LIVESTOCK AND ANIMAL FEED.
Ready to use product only for professional use.

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

Company identification

Hygiene technologies
Stortford Lodge, 4153 Hastings, New Zealand

For information regarding this safety data sheet, please contact :
regulatory@kersia-group.com

1.4. Emergency telephone number

Emergency phone number

Emergency direct number (24 hours a day, 7 days a week) : +65 3165 2217

New Zealand National Poisons Centre
0800 POISON (0800 764 766) - 24/7

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

The mixture meets the classification criteria provided for under Regulation (EC) No 1272/2008.

Eye irritation - Category 2	H319: Causes serious eye irritation.

2.2. Label elements

Labelling according to 1272/2008/EC Regulation:

Hazard pictograms(s) :



Signal word :
Warning

Contains : Glycolic acid

Hazard statement(s) :
H319: Causes serious eye irritation.

Precautionary statement(s) :
P260: Do not breathe fumes.
P264: Wash hands thoroughly after handling.
P280: Wear eye protection.
P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313: If eye irritation persists: Get medical advice/attention.

2.3. Other hazards

In case of treatment in presence of green plants, risk of phytotoxicity.
Release of nitrogen oxide, nitrogen dioxide, carbon monoxide, hydrogen cyanide and ammonia during the smoke-generating reaction.
The mixture does not contain substance of "Very high Concern" (SVHC) in the candidate list of substances for Autorisation published and updated regularly by ECHA in concentration greater than 0.1%.
The mixture does not contains any substance responding to criteria for classification as PBT or vPvB in accordance with Annex XIII of Regulation (EC) No 1907/2006.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Not applicable as this involves a mixture.

3.2. Mixtures

Chemical nature of the mixture : Powder

Substance(s)	CAS number(s)	EINECS number(s)	index	Classification according to Globally Harmonized System of Classification and Labelling of Chemicals (GHS)	SCL M-factor ATE	Type
20% <= Ammonium nitrate < 45%	6484-52-2	229-347-8		Ox. Sol. 3 H272 Eye Irrit. 2 H319		(1)
1% <= Glycolic acid < 5%	79-14-1	201-180-5		Skin Corr. 1B H314 Acute Tox. 4 (inhalation) H332 Eye Dam. 1 H318 EUH 071		(1)

Type
(1) : Substance classified as hazardous for health and/or the environment
(2) : Substance with an exposure limit at the work station.
Substance of very high concern candidate for the authorisation procedure:
(3) : Substance considered as PBT (persistent, bioaccumulable, toxic)
(4) : Substance considered as vPvB (very persistent, very bioaccumulable)
(5) : Substance considered as carcinogenic category 1A
(6) : Substance considered as carcinogenic category 1B
(7) : Substance considered as mutagenic category 1A
(8) : Substance considered as mutagenic category 1B
(9) : Substance considered as reprotoxic category 1A
(10) : Substance considered as reprotoxic category 1B
(11) : Substance considered as endocrine disrupter
(12) : Other substance considered hazardous to health or the environment
(N) : Nanomaterial
(M) : Microorganisms

Full text of H- and EUH- phrases : see section 16.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General indications:
In case of faintness , get medical advice/attention. Show this safety data sheet to the doctor.
If a person is unconscious, call in a first aider to place the person in the recovery position and monitor their breathing.

In the event of inhalation :
In case of inhalation of fumes : Wear protective equipment and remove the person from the vapours and provide fresh air. Breathing control. If symptoms occur, call the Poison Control Centre or a doctor.

In the event of contact with the skin :
Wash with water.
If symptoms occur, call the Poison Control Centre or a doctor.
In case of burns due to contact with a can that has not fully cooled : In case of superficial burn

(redness), cool the wound under running water for 15 minutes. In case of severe burns (blistering, skin detachment, large affected areas), seek medical advice.

In the event of contact with the eyes :
Rinse at once with a soft stream of water for at least 15 minutes, eyes wide open.
Remove contact lenses if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.

In the event of ingestion :
Rinse mouth.
Do NOT induce vomiting.
If symptoms occur, call the Poison Control Centre or a doctor.

4.2. Most important symptoms and effects, both acute and delayed

Skin contact : Prolonged or repeated contact with the skin can cause irritation.

Eye contact : May cause an eye irritation.

Ingestion : Ingestion can cause nausea, vomiting, abdominal pains and diarrhoea.

Inhalation : May cause respiratory irritation.
Cough. Shortness of breath. Headaches.

4.3. Indication of any immediate medical attention and special treatment needed

Treatments : Symptomatic treatment

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media :
ABC multi-purpose powders
Water (extinction water must be retained)

Unsuitable extinguishing media :
High pressure water jet
Chemical foams.
Organic compounds

5.2. Special hazards arising from the substance or mixture

Hazards linked to exothermal reactions.
Warming or fire can generate toxic gases (nitrogen oxides (NOx), carbon oxides).

5.3. Advice for firefighters

Wear independent respiratory equipment and protective suit.
Collect contaminated firefighting water separately, must not be discharged into the drains.
Keep containers cool by spraying with water if exposed to fire.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel :

Evacuate non-essential staff and those not equipped with individual protection apparatus.
Do not breathe dust.
Avoid/eliminate all ignition sources and hot spots.
Aerate or vent to prevent the formation of a dust cloud.

6.1.2. For emergency responders :

Evacuate the personnel to a safe location.
Keep people upwind and away from the location of the flow/leak.
Wear suitable protective clothing, shoes, gloves, glasses and an anti-dusts mask.

6.2. Environmental precautions

Intervention limited to trained staff.
Do not discharge the product directly to sewer or to environment.
Take as soon as possible all incompatible materials away.
Informing the authorities if the product penetrates in the sewers or in the waters of the public domain.

6.3. Methods and material for containment and cleaning up

Small spillage :
Limit the formation of dust.
Recover in a reservoir of help.

Large spillage :
Proceed the same way as in the case of a small discharge.
Never return spills in original containers for re-use.
Keep in suitable, properly labelled and closed containers for disposal.
Mark out and pump in an emergency tank.

6.4. Reference to other sections

Respect protective measures presented at heading 8.
Refer to section 13 for the elimination.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

In use, keep any combustible material.
Do not use in extremely dusty rooms (opaque dust cloud) or in the presence of inflammable vapour.
If the room to be treated is in an EXAT-explosive atmosphere-area, evaluate the reality of the room's EXAT character and, if necessary, suspend the EXAT character of the room by appropriate measure(s)

during the usage time of the product.
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.
When using do not eat, drink or smoke.
Wash the hands and any other zone exposed with a soft soap and water, before eating, drinking, smoking, and before leaving work.
Do not eat, drink or smoke in work area. Avoid projections during use.

7.2. Conditions for safe storage, including any incompatibilities

7.2.1. Storage :

Keep away from food drink and animal feedingstuffs.
Store at room temperature protected from water, humidity and all source of flameless combustion.
Conceive the installations and take all measure to avoid the pollutions of waters and soil contamination.
Do not expose to direct sunlight.
Storage in the original, closed packaging, between +5°C and +30°C.

7.2.2. Packaging or wrapping materials :

Keep only in original packaging.

7.3. Specific end use(s)

No other recommendation.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure limit values :

Substance	CAS number	Country	Type	Value	Unit	Comments	source
Cellulose	9004-34-6	NZL	OEL 8h	10	mg/m³	The value for inhalable dust containing no asbestos and less than 1% free silica.	International limit values for chemical agents
Emitted gas exposure limit values							
Ammonia	7664-41-7	NZL	OEL 8h	25	ppm		International limit values for chemical agents
				17	mg/m³		International limit values for chemical agents
			OEL Short term	35	ppm		International limit values for chemical agents
				24	mg/m³		International limit values for chemical agents
Nitrogen dioxide	10102-44-0	NZL	OEL 8h	3	ppm		International limit values for chemical agents
				5,6	mg/m³		International limit values for chemical agents
			OEL Short term	5	ppm		International limit values for chemical agents
				9,4	mg/m³		International limit values for chemical agents
Nitrogen oxide	10102-43-9	NZL	OEL 8h	25	ppm		International limit values for chemical agents
				31	mg/m³		International limit values for chemical agents
Carbon monoxide	630-08-0	NZL	OEL 8h	20(2)	ppm	Exposure can also be estimated by biological monitoring. (2) Ototoxic, may damage hearing (3) 15 minutes average value (4) Ceiling limit value	International limit values for chemical agents

Carbon monoxide	630-08-0	NZL	OEL Short term	100(2)(3)	ppm	Exposure can also be estimated by biological monitoring. (2) Ototoxic, may damage hearing (3) 15 minutes average value (4) Ceiling limit value	International limit values for chemical agents
				200(2)(4)	ppm	Exposure can also be estimated by biological monitoring. (2) Ototoxic, may damage hearing (3) 15 minutes average value (4) Ceiling limit value	International limit values for chemical agents
Hydrogen cyanide	74-90-8	NZL	OEL 8h	1	ppm	Ototoxic, may damage hearing (2) Ceiling limit value	International limit values for chemical agents
				1	mg/m³	Ototoxic, may damage hearing (2) Ceiling limit value	International limit values for chemical agents
			OEL Short term	5(2)	ppm	Ototoxic, may damage hearing (2) Ceiling limit value	International limit values for chemical agents
				5(2)	mg/m³	Ototoxic, may damage hearing (2) Ceiling limit value	International limit values for chemical agents

8.2. Exposure controls

According to the requirements of Directive 98/24 /EC, the employer is required to conduct a risk assessment and implement appropriate risks management measures.
* For any situation where the absence of risk is not proven, he must consider the substitution or reduction of risk by improving in priority processes used and collective protection measures. The effectiveness of the solutions implemented will be checked by measurement in comparison to the statutory limit values for substances defined in Section 8.1.
* If the risk remains after these corrective actions, he must always check by routinely measuring compliance with regulatory OEL if they exist in section 8.1 and apply all the individual protective measures given in section 8.2.
* When formalized risk assessment indicates a low risk to workers' health, control of compliance with regulatory OEL may not be considered and all individual protection measures is not always mandatory.

8.2.1. Appropriate engineering controls :

Apply the necessary technical measures to comply with the professional exposure limit values.
In use, keep any combustible material.
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%

8.2.2. Individual protection measures, such as personal protective equipment :

Eye/face protection :
Wear protective goggles compliant with standard EN ISO 16321-1 if there is a risk of exposure.

Hand protection :
During repeated or prolonged contact, wear protective, chemical-resistant gloves compliant with standard EN 374.
Examples of prefered materials for insulating gloves:
Butyl rubber.
Nitrile rubber.



Skin protection :
Wear protective work clothes



Respiratory protection :
None under normal conditions of use.
If the handling of the product produces aerial particles, wear an approved mask fitted with a P3 particle filter and adhere to the manufacturer's instructions.
If necessary to enter room during treatment, wear a face mask with an ABEK (class 2) + P (class 3) type filter (standard EN 149).



Thermal hazards :
Risk of burns to hands if canister is not cool enough: wear thermal protection gloves. (standard EN 407)

Health measures :
Safety shower and eye wash fountain near to workplace.
After using, wash systematically all personal protective equipment.
Handle in accordance with good industrial hygiene practices and the safety instructions.

8.2.3. Environmental exposure controls :

Avoid any diffusion of the product in sewage treatment plants and watercourses.
Do not throw the rinsing water from the treated surfaces down the drain.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	Powder
Colour	white to egg shell
Odour	Faint
Odour threshold	Not available
Melting point	Not available
Boiling point	Not applicable
Flammability (UN : N.1)	non-flammable
Lower explosive limit	Not applicable
upper explosive limit	Not applicable
Flash point	Not applicable
Auto-ignition temperature (EC : A16)	213.8 °C
Decomposition temperature	Not available
pH value at 10g/l	4.6 - 5.7
kinematic viscosity	Not applicable
Solubility	Partly soluble in water
Partition coefficient: n-octanol/water	-1.07 (Glycolic acid)
Vapour pressure	Not applicable
Relative density	0.66 (Tap density)
Relative density	0.5 (Pour density)
Vapour density	Not applicable
Particle characteristics (Dv (% volume))	Dv (90) = 435.3 µm | Dv (50) = 143.5 µm | Dv (10) = 36.6 µm

9.2. Other information

Explosive properties (UN : Serie 2)	Non-explosive
Minimum Ignition Energy	> 1,000 mJ (Very little sensitivity to electrostatic phenomena)
Minimum Ignition Temperature of a Dust Cloud	510 °C
Oxidising properties (UN : O.3)	non-oxidising
Pyrophoric solid (UN : N.2)	Negative
Self-accelerated decomposition temperature (SADT)	> 75 °C (50 kg)
Corrosive to metals (UN : C.1)	Non-corrosive
Combustible dust classification	St1

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

No hazardous reactivity of the product in its commercial packaging and under normal and recommended environmental conditions of storage and handling.
The principle of the implementation of the product is based on an exothermic reaction.

10.2. Chemical stability

Stable in the recommended storage and handling conditions.

10.3. Possibility of hazardous reactions

None under normal conditions of use.

10.4. Conditions to avoid

Stable in normal use conditions.

10.5. Incompatible materials

None to our knowledge.

10.6. Hazardous decomposition products

Release of nitrogen oxide, nitrogen dioxide, carbon monoxide, hydrogen cyanide and ammonia during the smoke-generating reaction.

These data are given for the concentrated mixture. The use of the mixture under its diluted form must be performed in conformity with data given by the technical data sheet and the technical adviser.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on hazard classes as defined in Regulation (EC) N°1272/2008

Substance-related data:

Acute toxicity
Ammonium nitrate (100%) : LD 50 - oral rat (OECD 401): 2,950 mg/kg. - MSDS supplier
Ammonium nitrate (100%) : LD 50 - dermal rat (OECD 402): > 5,000 mg/kg. - MSDS supplier
Glycolic acid (100) : LD 50 - oral rat (EPA OPP 81-1): 2,040 mg/kg. - MSDS supplier
Glycolic acid (100) : LC 50 - inhalation - 4h rat (OECD 403): 3.6 mg/L. - MSDS supplier

Serious damage to eyes/eye irritation
Ammonium nitrate (100%) : Eye irritation rabbit (OECD 405): . Causes serious eye irritation. - MSDS supplier

Respiratory / skin sensitisation
Ammonium nitrate (100%) : Skin sensitisation mouse (OECD 429): . Not sensitising - MSDS supplier

Mix-related data: :

Acute toxicity
LD 50 - oral - 48h rat (OECD 425): > 2,000 mg/kg.
LD 50 - dermal - 24h rat (OECD 402): > 2,000 mg/kg.

Skin corrosion/irritation
(OECD 404): . The mix is not considered to be irritating for the skin under the criteria of Regulation 1272/2008/EC.

Serious damage to eyes/eye irritation
(OECD 405): . Irritating to eyes.

Respiratory / skin sensitisation
Skin sensitisation . The mixture does not contain sensitising substances.
Respiratory sensitisation . The mixture is not considered as a respiratory sensitiser according to 1272/2008/EC Regulation.

Mutagenicity
. based on available data, the classification criteria are not met.

Carcinogenicity
. based on available data, the classification criteria are not met.

Reproductive toxicity
. based on available data, the classification criteria are not met.

Specific target organ toxicity - single exposure
. based on available data, the classification criteria are not met.

Specific target organ toxicity - repeated exposure
. based on available data, the classification criteria are not met.

Aspiration hazard
. based on available data, the classification criteria are not met.

Most important symptoms and effects, both acute and delayed :

Skin contact : Prolonged or repeated contact with the skin can cause irritation.

Eye contact : May cause an eye irritation.

Ingestion : Ingestion can cause nausea, vomiting, abdominal pains and diarrhoea.

Inhalation : May cause respiratory irritation.
Cough. Shortness of breath. Headaches.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties
Not concerned

SECTION 12: ECOLOGICAL INFORMATION

12.1. à 12.4. Toxicity - Persistence and degradability - Bioaccumulative potential - Mobility in soil

Substance-related data:

Acute toxicity
Glycolic acid (100%) : LC 50 - 96h minnow (Pimephales promelas) 114.8 mg/L. - MSDS supplier
Glycolic acid (100%) : EC 50 - 48h daphnia (Daphnia magna) (OECD 202): 99.6 mg/L. - MSDS supplier
Glycolic acid (100%) : EC 50 - 72h algae (Pseudokirschnereilla subcaptiata) (OECD 201): 31.2 mg/L. - MSDS supplier

Mix-related data: :

Acute toxicity
fishes . Not determined
daphnia . Not determined
algae . Not determined

Chronic toxicity
. No data available.

Degradability
. No data available.

Bioaccumulation
. No data available.

Mobility
. No data available.

Conclusion :
The mixture is not considered to be dangerous for the environment according to 1272/2008/EC Regulation.

12.5. Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB

12.6 Endocrine disrupting properties

Not concerned

12.7. Other adverse effects

No additional information available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Treatment of the mixture :

Packaging treatment :
Packagings do not be reused.
Give to an authorised disposal contractor.
Comply with national laws on the disposal of packaging.

SECTION 14: TRANSPORT INFORMATION

The product is not classified in accordance with international regulations relating to the transport of dangerous goods.
The product is not classified in accordance with international regulations relating to the transport of dangerous goods.

ROAD TRANSPORT: Rail/Route (RID/ADR)

14.1 UN number or ID number : Not concerned

14.2 UN proper shipping name :
Not concerned

14.3 Transport hazard class(es) :

14.4 Packing group :
Hazard identification number :
Label :

Tunnel code : (-)

14.5 Environmental hazards : No

14.6 Special precautions for user : No information.

Limited Quantity (QL):

MARITIME TRANSPORT : IMDG

14.1 UN number or ID number :Not concerned

14.2 UN proper shipping name : Not concerned

14.3 Transport hazard class(es) :

14.4 Packing group :

14.5 Environmental hazards
Marine pollutant : No

14.6 Special precautions for user : No information.
EmS number :
Comply with the provisions of the IMDG on the physical separation of materials.

Limited Quantity (QL):

14.7 Maritime transport in bulk according to IMO instruments : Not concerned

AIR TRANSPORT : IATA

14.1 UN number or ID number :Not concerned

14.2 UN proper shipping name : Not concerned

14.3 Transport hazard class(es) :

14.4 Packing group :

SECTION 15: REGULATORY INFORMATION

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

Regulation (EU) n°528/2012 concerning the making available on the market and use of biocidal products :
Not concerned

Regulations relating to the hazards from major accidents :
SEVESO 3 Directive (2012/18/EC) : Not concerned

Regulations relating to the classification, packaging and labelling of substances and mixtures :
Regulation (EC) 1272/2008 amended.

Waste regulations :
2008/98/EC Directive amended by 2015/1127/EC Directive - Regulation 1357/2014/EC
Decision 2014/955/EC which establishes the list of hazardous waste.

Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals : Not concerned

Protection of workers :
Directive 98/24/EC of 07/04/1998 on the protection of the health and safety of workers from the risks related to chemical agents at work.

Regulation (EU) 2019/1021 of 20 June 2019 on persistent organic pollutants : Not applicable

Regulation (EC) 1005/2009 amended on substances that deplete the ozone layer : Not applicable

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.

Regulation (EC) 648/2004 :
Not concerned

Comply with national and local legislation.

15.2. Chemical safety assessment

This safety data sheet has been drafted taking into account the information from exposure scenarios for the substances making up the mixture.

SECTION 16: OTHER INFORMATION

The safety data sheet is additional to the technical data sheet but does not replace it. The information given here in is to the best of our knowledge correct and is given in good faith. We must also draw the user's attention on potential risks of the product is used for other purposes for which the product is known.
In no way does it exempt users from being aware of and complying with regulations applicable to their activity. It is their sole responsibility to take all necessary precautions in accordance to the usage of the product they are aware of.
Regulations are only stated in order to help users fulfill the duties involved in the use of the product.
This description should not be considered as exhaustive. It does not exempt users from ensuring if other demands need to be complied with-according to other laws than the ones hereby stated and applicable to holding and usage of the product-demands for which they will remain sole responsibility.

The classification of this product has been established in accordance with Regulation (EC) 1272/2008 (CLP) and associated guidance, on the basis of the data available for the substances, mixture and/or calculation method and/or expert judgement.

Section(s) modified compared with the previous version :
SECTION 13: DISPOSAL CONSIDERATIONS

List of H phrases referred to in section 3 :
EUH 071 : Corrosive to the respiratory tract.
H272 : May intensify fire; oxidiser.
H314 : Causes severe skin burns and eye damage.
H318 : Causes serious eye damage.
H319 : Causes serious eye irritation.
H332 : Harmful if inhaled.

Sources of key data used to compile the data sheet :
MSDS supplier
International limit values for chemical agents

Historical :
Version 7.1.0
Cancels and replaces previous version 7.0.