	COLKIM S.r.l.	Revision nr. 2.8
	NO-LARV GRANULI	Dated 28/02/2018 Page n. 1/9

Safety Data Sheet

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

1.1. Product identifier.

Product name. **NO-LARV GRANULI**

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

Description/Intended use. **Insecticide in effervescent granules. For the control of mosquito and fly larvae in the spawning areas.**

1.3. Details of the supplier of the safety data sheet.

Name. **COLKIM S.r.l.**
Full address. **Via Piemonte, 50**
District and Country. **40064 OZZANO EMILIA (BO)**
Italia
Tel. 051 / 799445
Fax. 051 / 797555

E-mail address of the competent person. **info@colkim.it**
Responsible for the Safety Data Sheet. **COLKIM S.r.l. - Via Piemonte, 50 - 40064 OZZANO E. (BO)**
Product distribution by:

1.4. Emergency telephone number.

For urgent inquiries refer to. **118**

Contact a poison control center:

Poison Control Center	Address	Telephone Number
CAV "Osp. Pediatrico Bambino Gesù"	P.zza Sant'Onofrio, 4 – 00165 Roma (RM)	06 68593726
Az. Osp. Univ. Foggia	V.le Luigi Pinto, 1 – 71122 Foggia (FG)	0881 732326
Az. Osp. "A. Cardarelli"	Via A. Cardarelli, 9 – 80131 Napoli (NA)	081 7472870
CAV Policlinico "Umberto I"	V.le del Policlinico, 155 – 00161 Roma (RM)	06 49978000
CAV Policlinico "A. Gemelli"	Largo Agostino Gemelli, 8 – 00168 Roma (RM)	06 3054343
Az. Osp. "Careggi" U.O. Tossicologia Medica	Largo Brambilla, 3 – 50134 Firenze (FI)	055 7947819
CAV Centro Nazionale di Informazione Tossicologica	Via Salvatore Maugeri, 10 – 27100 Pavia (PV)	0382 24444
Osp. Niguarda Ca' Granda	P.zza Ospedale Maggiore, 3 – 20162 Milano (MI)	02 66101029
Azienda Ospedaliera Papa Giovanni XXII	P.zza OMS, 1 – 24127 Bergamo (BG)	800883300


SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Eye irritation, category 2	H319	Causes serious eye irritation.
Hazardous to the aquatic environment - Chronic Hazard,	H410	Very toxic to aquatic life with long lasting effects.

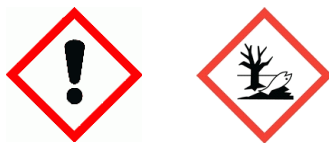
	COLKIM S.r.l.	Revision nr. 2.8
	NO-LARV GRANULI	Dated 28/02/2018 Page n. 2/9

Category 1

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:



Signal words: Warning

Hazard statements:

H319 Causes serious eye irritation.
H410 Very toxic to aquatic life with long lasting effects

Precautionary statements:

P102 Keep out of reach of children.
P264 Wash hands thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P273 Avoid release to the environment.
P280 Wear eye protection/ face 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.
P391 Collect spillage.
P401 Keep away from food, drink and animal feedingstuffs.
P501 Dispose of contents/container in accordance with national regulation.

2.3. Other hazards.

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

SECTION 3. Composition/information on ingredients.

3.1. Substances.


Information not relevant.

3.2. Mixtures.

Contains:

Identification	Conc. %	Classification 1272/2008 (CLP).
CITRIC ACID		
CAS. 77-92-9 EC. 201-069-1	70-90	Eye Irrit. 2; H319
DIFLUBENZURON		
CAS. 35367-38-5 EC. 252-529-3	2	STOT RE 2; H373; Aquatic Acute 1; H400; Aquatic Chronic 1; H410

The full wording of hazard (H) phrases is given in section 16 of the sheet.

	COLKIM S.r.l.	Revision nr. 2.8
	NO-LARV GRANULI	Dated 28/02/2018 Page n. 3/9

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.

SKIN: Remove contaminated clothing and shoes. Wash immediately with plenty of water and soap. If irritation persists, get medical advice/attention. Wash contaminated clothing before using it again.

INHALATION: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention immediately.

INGESTION: Rinse mouth with water. Do NOT induce vomiting. Obtain medical attention.

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

Causes serious eye irritation.

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

The first aid procedure should be established in consultation with the doctor responsible for industrial medicine.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Carbon dioxide (CO₂), Dry powder Foam Water mist

UNSUITABLE EXTINGUISHING EQUIPMENT

Water spray

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

5.3. Advice for firefighters.

GENERAL INFORMATION

Prevent fire extinguishing water from contaminating surface water or the ground water system.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

Do not empty into drains. Dispose of this material and its container to hazardous or special waste collection point. Do not allow material to contaminate ground water system. Do not allow uncontrolled discharge of product into the environment. Do not flush into surface water or sanitary sewer system.

6.3. Methods and material for containment and cleaning up.

Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.


SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothing. Keep away from sources of ignition - No smoking.

7.2. Conditions for safe storage, including any incompatibilities.

Keep in a dry, cool place. Keep container tightly closed. Keep in a well-ventilated place. Avoid generating dust; fine dust dispersed in air in sufficient

	COLKIM S.r.l.	Revision nr. 2.8
	NO-LARV GRANULI	Dated 28/02/2018 Page n. 4/9

concentrations, and in the presence of an ignition source is a potential dust explosion hazard. Stable under recommended storage conditions.

7.3. Specific end use(s).

Insecticide.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

None.

8.2. Exposure controls.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear airtight protective goggles (see standard EN 166).

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.


Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance	Granular
Colour	Light Yellow
Odour	Sweet
Odour threshold.	Not available.
pH.	2-4
Melting point / freezing point.	Not relevant.
Initial boiling point	Not relevant.
Boiling range	Not relevant.
Flash point.	Not available.
Evaporation Rate	Not available.
Flammability of solids and gases	Not flammable.
Lower inflammability limit.	Not applicable
Upper inflammability limit.	Not applicable
Lower explosive limit.	Not applicable
Upper explosive limit.	Not applicable
Vapour pressure.	Not relevant.
Vapour density	Not relevant.
Density.	1 g/cm ³
Solubility	Dispersible.
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature.	Not applicable.
Decomposition temperature.	Not applicable.
Viscosity	Not available.
Explosive properties	Not applicable.
Oxidising properties	Not applicable.

	COLKIM S.r.l.	Revision nr. 2.8
	NO-LARV GRANULI	Dated 28/02/2018 Page n. 5/9

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

Hazardous polymerisation does not occur.

10.4. Conditions to avoid.

Extremes of temperature and direct sunlight.

10.5. Incompatible materials.

Incompatible with: oxidizing agents, strong acids and strong bases

10.6. Hazardous decomposition products.

Burning produces noxious and toxic fumes.

SECTION 11. Toxicological information.

No episodes of damage to health due to exposure to the product are known. In any case it is recommended to operate in compliance with the rules of good industrial hygiene. The preparation may, in particularly sensitive individuals, cause slight health effects due to inhalation and / or cutaneous absorption and / or contact with the eyes and / or ingestion.

11.1. Information on toxicological effects.

ACUTE TOXICITY

LD50(Oral) >5,000 mg/kg rat BLP: yes

LC50(Inhalation dust/mist) > 5.12 mg/l/4h rat BPL: yes

LD50(Dermal) > 5,000 mg/kg rat BLP: yes

CITRIC ACID

LD50(Oral) 3,000 mg/kg rat

SKIN CORROSION / IRRITATION

Does not meet the classification criteria for this hazard class

SERIOUS EYE DAMAGE / IRRITATION

Does not meet the classification criteria for this hazard class

RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY


Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

	COLKIM S.r.l.	Revision nr. 2.8
	NO-LARV GRANULI	Dated 28/02/2018 Page n. 6/9

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

SECTION 12. Ecological information.

12.1. Toxicity

EC50 – for Crustacea 0.000112 mg/l/48h SPECIES DAPHNIA MAGNA GLP: yes

CITRIC ACID

LC50 – for Fish 1,516 mg/l/96 h SPECIES Lepomis macrochirus

LC50 – for Fish 440 - 760 mg/l/96h SPECIES Leuciscus idus

EC50 – for Crustacea 85 - 1,535 mg/l/24h SPECIES DAPHNIA MAGNA

N-[[[(4-chlorophenyl)amino]carbonyl]-2,6-difluorobenzamide

M-Factor (Acute aquatic toxicity) 100

M-Factor (Chronic aquatic toxicity) 1,000

12.2. Persistence and degradability

CITRIC ACID

Inoculum: activated sludge

Result: Readily biodegradable

Biodegradation: 85 %

12.3. Bioaccumulative potential.

CITRIC ACID

Species: Fish

Bioconcentration factor (BCF): 0.01

Partition coefficient: n- octanol/water: log Pow: -1.7

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6. Other adverse effects.

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorized waste management firm, in compliance with national and local regulations.

Waste transportation may be subject to ADR restrictions.

The CER codes recommended (which may change according to the use) are:

CER 16.03.05* – Organic waste containing hazardous substances.

CONTAMINATED PACKAGING


Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

The CER codes recommended (which may change according to the use) are:

CER 15.01.10* - Packaging containing residues of or contaminated by dangerous substances.

SECTION 14. Transport information.

14.1. UN number

	COLKIM S.r.l.	Revision nr. 2.8
	NO-LARV GRANULI	Dated 28/02/2018 Page n. 7/9

ADR / RID, IMDG, IATA: 3082
 ADR / RID: In accordance with Special Provision 375, this product, when is packed in receptacles of a capacity ≤ 5Kg or 5L, is not submitted to ADR provisions.
 IMDG: In accordance with Section 2.10.2.7 of IMDG Code, this product, when is packed in receptacles of a capacity ≤ 5Kg or 5L, is not submitted to IMDG Code provisions.
 IATA: In accordance with SP A197, this product, when is packed in receptacles of a capacity ≤ 5Kg or 5L, is not submitted to IATA dangerous goods regulations.

14.2. UN proper shipping name.

ADR / RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.(Diflubenzuron)
 IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. .(Diflubenzuron)
 IATA: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. Environmentally hazardous substance, solid, n.o.s. (Diflubenzuron)

14.3. Transport hazard class(es)

ADR / RID: Class: 9 Label: 9
 IMDG: Class: 9 Label: 9
 IATA: Class: 9 Label: 9



14.4. Packing group

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards

ADR / RID: Environmentally Hazardous
 IMDG: Marine Pollutant
 IATA: Environmentally Hazardous



14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 90	Limited Quantities: 5 L	Tunnel restriction code: (-)
IMDG:	Special Provision: -	Limited Quantities: 5 L	
IATA:	EMS: F-A, S-F	Maximum quantity: 450 L	Packaging instructions: 964
	Cargo:	Maximum quantity: 450 L	Packaging instructions: 964
	Pass.:	A97, A158, A197	
	Special Instructions:		

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant.


SECTION 15. Regulatory information.

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

International Chemical Weapons Convention (CWC) Schedules of Toxic Chemicals and Precursors: Neither banned nor restricted

Restrictions on the marketing and use of certain dangerous substances and preparations: Neither banned nor restricted

Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals: Neither banned nor restricted

	COLKIM S.r.l.	Revision nr. 2.8
	NO-LARV GRANULI	Dated 28/02/2018 Page n. 8/9

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59): This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57).

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

E1 ENVIRONMENTAL HAZARDS Quantity1: 100t Quantity 2: 200t

15.2. Chemical safety assessment.

Refer to the protection and prevention measures in sections 7 and 8 of the datasheet.

SECTION 16. Other information.

MINISTRY OF HEALTH AUTHORIZATION N. 19309

Text of hazard (H) indications mentioned in section 2-3 of the sheet:


Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Eye Irrit. 2	Serious eye irritation, Category 2
STOT RE	Specific target organ toxicity - repeated exposure.
H319	Causes serious eye irritation
H373	May cause damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament

	COLKIM S.r.l.	Revision nr. 2.8
	NO-LARV GRANULI	Dated 28/02/2018 Page n. 9/9

3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
 4. Regulation (EU) 2015/830 of the European Parliament
 5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
 6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
 7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
 8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
 9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
 10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
 11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
 12. Regulation (EU) 2016/1179 (IX Atp. CLP)
 13. Regulation (EU) 2017/776 (X Atp. CLP)
 - The Merck Index. - 10th Edition
 - Handling Chemical Safety
 - INRS - Fiche Toxicologique (toxicological sheet)
 - Patty - Industrial Hygiene and Toxicology
 - N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
 - IFA GESTIS website
 - ECHA website
 - Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
 This document must not be regarded as a guarantee on any specific product property.
 The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
 Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:

The following sections were modified:
 11; 14.

Legend of the information contained at section 9.1 of the datasheet:

Not Applicable: the data or the characteristic is not applicable to the product in question, due to its nature.
 Not Relevant: the data or the characteristic is not relevant to determine the hazardous characteristics of the product.
 Not Available: the data or the characteristic, even though it would be potentially relevant to determine the characteristics of the product, is not available.