

## DATA INFORMATION SAFETY

INFORMATIVE SHEET  
NOT OBLIGATORY, AS THE PRODUCT  
IS NOT CLASSIFIED AS HAZARDOUS IN ACCORDANCE WITH NATIONAL AND EUROPEAN  
LAWS  
NEITHER REQUIRES A SAFETY DATA SHEET IN ACCORDANCE WITH ARTICLE 31 (3) OF THE  
REACH REGULATION 1907/06 AS AMENDED BY ART. 59 (2) (B) OF REG 1272/08

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Product: **ARMAL BIODEGRADATION**

### 1. Identification of the preparation and the Company/enterprise \*\*

1.1 Product identifier **ARMAL BIODEGRADATION**

1.2 Relevant identified uses of the substance or mixture:  
Biological activator for purification processes

1.3 Details of the supplier of the safety data sheet:  
ARMAL S.R.L.  
Via Fiorentina, 109  
50052 Certaldo (FI)  
Tel. 0571/663455

1.4 Emergency phone number  
0571/663455 (Call during office hours)

e-mail TC: [paolaulivi@dangerandsafety.it](mailto:paolaulivi@dangerandsafety.it)

### 2. Hazards identification \*\*

2.1 Classification of the substance or mixture

**Classification according to Regulation (EC) No 1272/2008:**

This mixture is not dangerous under Regulations (EC) 1272/2008 and 790/2009 and subsequent amendments.

**Hazard statement Code(s):**

None

2.2. Label elements:

**Pictogram, Signal Word Code(s):**

None

**Hazard statement Code(s):**

None

**Precautionary statements:**

none

2.3 Other hazards:

None

### 3. Composition/Information on ingredients \*\*

#### 3.2 Mixtures

Contains: biological activator complex of useful microorganisms selected, natural enzymatic component, nutrients, mineral biocatalysts.

### 4. First-aid measures \*\*

#### 4.1 Description of first aid measures

##### Inhalation

Move to a ventilated area. If breathing is difficult, seek medical advice.

##### Skin contact

Wash with water and soap. In case of irritation seek medical attention.

##### Eyes contact

Wash with plenty of water. In case of irritation seek medical advice.

##### Ingestion

Rinse the mouth. In case of malaise consult a doctor.

##### Other

Change contaminated clothing.

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

Not available

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

not available

### 5. Fire-fighting measures

#### 5.1 Extinguishing media

##### Advised extinguishing agents:

CO<sub>2</sub>, nebulized water, foam, chemical powder

##### Unappropriate extinction methods:

none

#### 5.2. Special hazards arising from the substance or mixture

The product under fire condition may develop irritant/toxic gas

#### 5.3. Advice for firefighters

Wear the fire equipment all the time. Water used in fire-fighting has to be disposed following Local regulation.

## 6. Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

Avoid the contact with eyes and skin. In case of formation of powder use a suitable respiratory protection. Move away any unauthorised person. Remove or exclude any source of ignition.

### 6.2. Environmental precautions

Collect the product in suitable container for disposal. Notify authorities if product enters sewer or public waters

### 6.3. Methods and material for containment and cleaning up

Collect the spilled material mechanically, avoiding the formation of dust. Use water only to remove debris so as to avoid the danger of pouring the product into the sewers.

### 6.4 Reference to other sections

Refer to paragraphs 8 and 13 for more information.

## 7. Handling and storage \*\*

### 7.1. Precautions for safe handling

Supply good air circulation in working area. Do not smoke, eat or drink during the working processes. Use in well ventilated rooms. Avoid dusting.

### 7.2. Conditions for safe storage, including any incompatibilities

Store the packaging closed in a fresh and ventilated area, far from sources of ignition. Protect from humidity. Store at temperatures between 5-25° C. Avoid fine pulverization: danger of powder explosion.

### 7.3. Specific end use(s)

For particular uses of the product, is necessary to refer to the specific information or contact the technical service of the Company.

## 8. Exposure controls/personal protection \*\*

### 8.1. Control parameters

TLV-TWA: 10 mg / m<sup>3</sup> (8h, total dust)

### 8.2 Exposure controls

In order to minimize exposure as far as possible, it is strongly recommended to use adequate individual protective measures . Do not eat, drink or smoke while handling it. Accurately wash the hands with soap and water before meals and at the end of the work shift.

### Individual protection

The DPI's choice must be done on the basis of the test's results obtained according to the rule EN 374

Hand protection : : not necessary for normal use

Eye protection : : not necessary for normal use

Skin protection : not necessary for normal use  
 Respiratory protection : not necessary for normal use

**9. Physical and chemical properties \*\***

*9.1. Information on basic physical and chemical properties*

Physical and chemical properties	Value	Determination method
Appearance	beige powder	
Odour	characteristic	
Odour threshold	not available	
pH	6 ± 0,5	1:2,5 water
Melting point/freezing point	not available	
Initial boiling point and boiling range	not pertinent	
Flash point	not pertinent	
Evaporation rate	not pertinent	
Flammability (solid, gas)	not available	
Upper/lower flammability or explosive limits	not available	
Vapour pressure	not pertinent	
Vapour density	not pertinent	
Density	850 ± 50 g/l	
Solubility	not available	
Water solubility	not available	
Partition coefficient: n-octanol/water	not available	
Auto-ignition temperature	not available	
Decomposition temperature	not available	
Viscosity	not pertinent	
Explosive properties	not explosive	
Oxidising properties	not oxidising	

*9.2. Other information*

Conductivity: 8 ± 3 mS (Solution 1: 2.5 in distilled water)

Humidity: 4% ± 1

VOC (Directive 1999/13/CE): -%

**10. Stability and reactivity \*\***

*10.1. Reactivity*

In contact with strong oxidants exothermal reaction may occur.

*10.2. Chemical stability*

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

*10.3. Possibility of hazardous reactions:*

In addition to what expressly indicated it is not aware that under different conditions from those of the normal use of hazardous reactions occurring.

*10.4. Conditions to avoid:*

Avoid the end spraying and moisture.

10.5. Incompatible materials:

No data available

10.6. Hazardous decomposition products

Due to thermal decomposition or in the event of a fire vapours may be produced potentially dangerous to health

**11. Toxicological information \*\***

11.1. Information on toxicological effects

Acute effects:

No episodes of damage to health due to exposure to the product. Anyway, it must be handled carefully according to good industrial practices.

This preparate may have slight health effects on sensitive people, by inhalation and/or cutaneous absorption and/or contact with eyes and/or ingestion.

The microorganism, content in the formula, belong to the CLASS 1 (Definition of COUNCIL DIRECTIVE 93/88/ECC del 12/10/1993).

The bacterial strain used in the preparation of the product, don't fall in the list of Biological Agents classified in 'Annex XLVI's D.Lgs. 81/08.

**There aren't agents that can cause infectious diseases in humans.**

**12. Ecological information**

12.1. Toxicity:

Use this product according to good working practices. This product doesn't contain the pollution. It promotes degradation of pollutant molecules.

12.2. Persistence and degradability

not available

12.3. Bioaccumulative potential:

not available

12.4. Mobility in soil:

not available

12.5. Results of PBT and vPvB assessment:

not available

12.6. Other adverse effects: not available

*This product doesn't contain AOX*

**13. Disposal considerations**

**13.1. Waste treatment methods**

Operate following the current Local or National Laws.  
The non reclaimed containers have to be disposed as the product.  
Consider the possibility of burning the product in a suitable incenerator.

**14. Transport information \*\***

**14.1. UN number**

Not included in the scope of application regulations concerning the transport of dangerous goods: by road (ADR); by rail (RID); by air (ICAO / IATA); by sea (IMDG).

**14.2. UN proper shipping name**

None

**14.3. Transport hazard class(es)**

None

**14.4. Packing group**

None

**14.5. Environmental hazards**

None

**14.6. Special precautions for user**

No data available.

**14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

It is not intended to carry bulk

**15. Regulatory information \*\***

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

Danger labeling under directives 1272/2008 (EC) and 790/2009 and subsequent amendments.

Regulation	Cas	Substance
Reg. 428/2009 ex Reg. (CE) 1334/2000 All.1	-	-
Reg. (CE) 273/04 Ann I Cat. 1	-	-
Reg. (UE) 1258/2013 (modification Reg (CE) 273/04 Ann. I Cat. 2)	-	-
Reg. (CE) 273/04 Ann I Cat. 3	-	-
Reg. (CE) 1907/2006 Ann. XIV	-	-
Reg. (CE) 1907/2006 Substances SVHC	-	-
Reg. (CE) 1907/2006 Ann. XVII	-	-
2003/105/CE Ann.1 part 1	-	-

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2003/105/CE Ann.1 part 2	-	-
2012/18/UE Ann.1 part 1	-	-
2012/18/UE Ann.1 part 2	-	-

15.2. Chemical safety assessment

None

**16. Other information \*\***

**Description of the sentences of risk set out in paragraph 3:**

N.A.

*Classification based by calculation, on data of all components of the mixture*

*\*\* Indicates information that has changed from previously issued*

**GENERAL BIBLIOGRAPHY:**

1. Regulation (EC) 1907/2006 of the European Parliament (REACH)
2. Regulation (EC) 1272/2008 of the European Parliament (CLP) and its amendments and adjustments
3. Regulation (EC) 790 / 2009
4. Regulation (EU) 453/2010
5. Regulation (EU) 830/2015
6. The Merck Index. Ed 10
7. Handling Chemical Safety
8. NIOSH - Registry of Toxic Effects of Chemical Substances
9. INRS - Fiche Toxicologique
10. Patty - Industrial Hygiene and Toxicology
11. NI Sax - Dangerous Properties of Industrial Materials-7, 1989 Edition
12. ADR Directive 2008/68/CE and its amendments and adjustments
13. ECHA Web site <http://echa.europa.eu/web/guest>
14. Directive 2012/18/UE
15. Directive 2009/161/UE

**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.

**This sheet cancels and substitutes any previous edition.**