

# **Safety Data Sheet**

According to Annex II to REACH - Regulation 2015/830

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

1.1. Product identifier

Code: ADA 102B
Product name ENZO IRON

Chemical name and synonym Ferric orthophosfate

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

Intended use Granular anti-snail.

-	-	<b>~</b>
Third Floor East, 1410 Arling Theale - READING RG7 4SA		
	Adama Agricultural Solutions	Adama Agricultural Solutions UK Ltd Third Floor East, 1410 Arlington Business Park Theale - READING RG7 4SA United Kindom

tel. 01635 860555 fax 01635 861555

e-mail address of the competent person

responsible for the Safety Data Sheet ukenquiries@adama.com

1.4. Emergency telephone number

For urgent inquiries refer to Chemical Emergency Centre (UK) - Tel. 01865 407333 (24 hours)

## **SECTION 2. Hazards identification**

#### 2.1. Classification of the substance or mixture

The product is not classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP). However, since the product contains hazardous substances in concentrations such as to be declared in section no. 3, it requires a safety data sheet with appropriate information, compliant to (EU) Regulation 2015/830.

Hazard classification and indication:

#### ADAMA U.K.

Revision nr. 1

Dated 12/03/2020

Printed on 12/03/2020

Page n. 2/13

# **ADA102B - ENZO IRON**

#### 2.2. Label elements

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

Hazard pictograms: -

Signal words: --

Hazard statements:

**EUH210** Safety data sheet available on request.

**EUH401** To avoid risks to human health and the environment, comply with the instructions for use.

Precautionary statements:

P102 Keep out of reach of children.

SP1 Do not contaminate water with the product or its container.

Do not clean the operating equipment near surface water.

Prevent contamination of farms and roads by draining water.

#### 2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

# **SECTION 3. Composition/information on ingredients**

#### 3.1. Substances

Information not relevant

#### 3.2. Mixtures

Contains:

Identification x = Conc. % Classification 1272/2008 (CLP)

ETHYLENE DIAMINE TETRA ACETIC ACID, DISODIUM SALT

CAS 139-33-3  $5 \le x < 9$  Acute Tox. 4 H332, STOT RE 2 H373

EC 205-358-3 INDEX -

Reg. no. 01-2119486775-20

CALCIUM SULPHATE DIHYDRATE

CAS 10101-41-4  $1 \le x < 5$ 

EC 231-900-3

INDEX -

# 

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

#### **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. Wash immediately with plenty of water. If irritation persists, get medical advice/attention. Wash contaminated clothing before using it again.

INHALATION: Remove to open air. In the event of breathing difficulties, get medical advice/attention immediately.

INGESTION: Get medical advice/attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person, unless authorised by a doctor.

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

Specific information on symptoms and effects caused by the product are unknown.

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

Information not available

#### **SECTION 5. Firefighting measures**

#### 5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT

The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.

UNSUITABLE EXTINGUISHING EQUIPMENT

None in particular.

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

## HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Do not breathe combustion products. The product is combustible and, when the powder is released into the air in sufficient concentrations and in the presence of a source of ignition, it can create explosive mixtures with air. Fires may start or get worse by leakage of the solid product from the container, when it reaches high temperatures or through contact with sources of ignition.

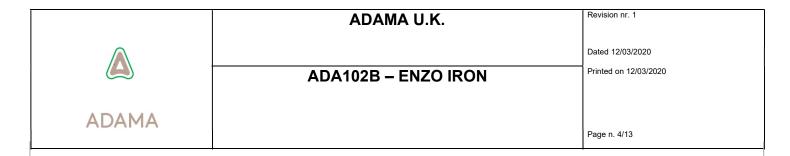
#### 5.3. Advice for firefighters

#### GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

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

If there are no contraindications, spray powder with water to prevent the formation of dust.

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

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

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

Collect the leaked product and place it in containers for recovery or disposal. If there are no contraindications, use jets of water to eliminate product residues.

Make sure the leakage site is well aired. Evaluate the compatibility of the container to be used, by checking section 10. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

#### 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

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

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

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

#### 7.3. Specific end use(s)

Information not available

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

#### 8.1. Control parameters

Regulatory References:

ESP España LÍMITES DE EXPOSICIÓN PROFESIONAL PARA AGENTES QUÍMICOS EN ESPAÑA 2019 (INSST)
GBR United Kingdom EH40/2005 Workplace exposure limits (Third edition, published 2018)
ITA Italia DIRETTIVA (UE) 2017/164 DELLA COMMISSIONE del 31 gennaio 2017

TLV-ACGIH ACGIH 2019

### ADAMA U.K.



**ADA102B - ENZO IRON** 

Revision nr. 1

Dated 12/03/2020

Printed on 12/03/2020

Page n. 5/13

Туре	Country	TWA/8h	TWA/8h STEL/15min			Remarks / Observations	
		mg/m3	ppm	mg/m3	ppm		
VLEP	ITA	5					
Predicted no-effect cond	centration - PNEC						
Normal value in fresh w	ater			2,5		mg/l	
Normal value in marine	water			0,25		mg/l	
Normal value for water,	intermittent release			1,4		mg/l	
Normal value of STP m	croorganisms			50		mg/l	
Normal value for the ter	restrial compartment			0,84		mg/kg/d	

Health - Derived no-effect level - DNEL / DMEL									
	Effects on				Effects on				
	consumers				workers				
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic	Acute local	Acute	Chronic local	Chronic	
				systemic		systemic		systemic	
Inhalation								1,5 mg/m3	

#### **CALCIUM SULPHATE DIHYDRATE Threshold Limit Value** Country TWA/8h STEL/15min Remarks / Туре Observations mg/m3 ppm mg/m3 ppm 10 ESP VLA WEL GBR 10 INHAL GBR RESP WEL 4 TLV-ACGIH 10

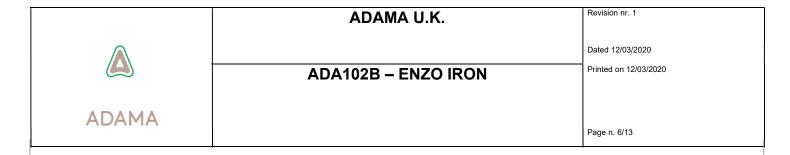
COPPER PHTHAL	LOCYANINE							
Threshold Limit V	/alue							
Туре	Country	TWA/8h		STEL/15min		Remarks / Observations		
		mg/m3	ppm	mg/m3	ppm			
VLA	ESP	0,1				RESP	Como Cu	
WEL	GBR	1		2			As Cu	

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

During the risk assessment process, it is essential to take into consideration the ACGIH occupational exposure levels for inert particulate not otherwise classified (PNOC respirable fraction: 3 mg/m3; PNOC inhalable fraction: 10 mg/m3). For values above these limits, use a P type filter, whose class (1, 2 or 3) must be chosen according to the outcome of risk assessment.



#### 8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

#### HAND PROTECTION

In the case of prolonged contact with the product, protect the hands with penetration-resistant work gloves (see standard EN 374).

Work glove material must be chosen according to the use process and the products that may form. Latex gloves may cause sensitivity reactions.

#### SKIN PROTECTION

Wear category I professional long-sleeved overalls and safety footwear (see Regulation 2016/425 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

Use a type P filtering facemask, whose class (1, 2 or 3) and effective need, must be defined according to the outcome of risk assessment (see standard EN 149).

#### **ENVIRONMENTAL EXPOSURE CONTROLS**

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

#### **SECTION 9. Physical and chemical properties**

#### 9.1. Information on basic physical and chemical properties

Appearance solid Colour blue Odour Odorless Odour threshold Not available рΗ Not available Not available Melting point / freezing point Not available Initial boiling point Boiling range Not available Flash point Not available **Evaporation Rate** Not available Flammability of solids and gases not flammable Lower inflammability limit Not available Upper inflammability limit Not available Lower explosive limit Not available Upper explosive limit Not available Vapour pressure Not available Not available Vapour density

#### ADAMA U.K.

Revision nr. 1

Dated 12/03/2020

Printed on 12/03/2020

Page n. 7/13

# ADA102B – ENZO IRON

0,65 - 0,75 Relative density Solubility Not hydrosoluble Not available Partition coefficient: n-octanol/water Not available Auto-ignition temperature Decomposition temperature Not available Not available Viscosity Explosive properties Not explosive Oxidising properties Not oxidant

#### 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

The powders are potentially explosive when mixed with air.

#### 10.4. Conditions to avoid

Avoid environmental dust build-up.

#### 10.5. Incompatible materials

Information not available

#### 10.6. Hazardous decomposition products

Information not available

# **SECTION 11. Toxicological information**

#### 11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

#### ADAMA U.K.

Revision nr. 1

Dated 12/03/2020

Printed on 12/03/2020

Page n. 8/13

# **ADA102B - ENZO IRON**

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

#### **ACUTE TOXICITY**

LC50 (Inhalation) of the mixture: > 5 mg/l

LD50 (Oral) of the mixture: Not classified (no significant component) LD50 (Dermal) of the mixture: Not classified (no significant component)

ETHYLENE DIAMINE TETRA ACETIC ACID, DISODIUM SALT

LD50 (Oral) 2000 mg/kg Rat

LC50 (Inhalation) < 5 mg/l/4h Rat [OECD Test Guideline 403]

#### 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

#### ADAMA U.K.

Revision nr. 1

Dated 12/03/2020

Printed on 12/03/2020

Page n. 9/13

# ADA102B - ENZO IRON

#### 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

#### **ASPIRATION HAZARD**

Does not meet the classification criteria for this hazard class

# **SECTION 12. Ecological information**

To avoid risks to human health and the environment, comply with the instructions for use.

#### 12.1. Toxicity

ETHYLENE DIAMINE TETRA ACETIC ACID, DISODIUM SALT LC50 - for Fish EC50 - for Crustacea

320 mg/l/96h Poecillia Reticulata (Guppy) 140 mg/l/48h Daphnia magna [DIN 38412]

#### 12.2. Persistence and degradability

ETHYLENE DIAMINE TETRA ACETIC ACID, DISODIUM SALT NOT rapidly degradable

#### 12.3. Bioaccumulative potential

ETHYLENE DIAMINE TETRA ACETIC ACID, DISODIUM SALT

Partition coefficient: n-octanol/water

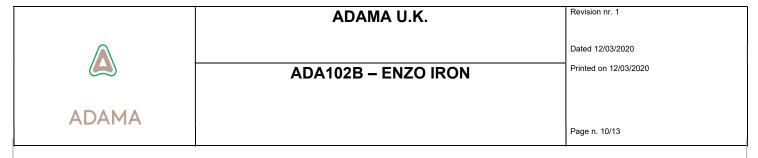
< 0

#### 12.4. Mobility in soil

Information not available

#### 12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.



#### 12.6. Other adverse effects

Information not available

# **SECTION 13. Disposal considerations**

#### 13.1. Waste treatment methods

Reuse, when possible. Neat product residues should be considered special non-hazardous waste.

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

CONTAMINATED PACKAGING

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

# **SECTION 14. Transport information**

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of

the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.	·	,	. ,
14.1. UN number			

14.2. UN proper shipping name

Not applicable

Not applicable

14.3. Transport hazard class(es)

Not applicable

14.4. Packing group

Not applicable



None

None

Substances subject to the Rotterdam Convention:

Substances subject to the Stockholm Convention:

# 

#### Healthcare controls

Information not available

#### 15.2. Chemical safety assessment

A chemical safety assessment has not been performed for the preparation/for the substances indicated in section 3.

#### **SECTION 16. Other information**

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

Acute Tox. 4 Acute toxicity, category 4

STOT RE 2 Specific target organ toxicity - repeated exposure, category 2

H332 Harmful if inhaled.

H373 May cause damage to organs through prolonged or repeated exposure.

EUH210 Safety data sheet available on request.

EUH401 To avoid risks to human health and the environment, comply with the instructions for

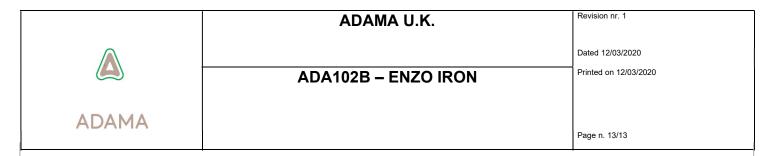
use.

#### 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
- 3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
- 4. Regulation (EU) 2015/830 of the European Parliament
- Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
   Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
   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)
- 14. Regulation (EU) 2018/669 (XI Atp. CLP)
- 15. Regulation (EU) 2018/1480 (XIII Atp. CLP)
- 16. Regulation (EU) 2019/521 (XII 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.

Product's classification is based on the calculation methods set out in Annex I of the CLP Regulation, unless otherwise indicated in sections 11 and 12. The data for evaluation of chemical-physical properties are reported in section 9.