

# CERTIFICATE OF ANALYSIS



**PRODUCT NAME:** ALLANTOIN

**BATCH/LOT NUMBER:** 4459203

**BEST BEFORE DATE:** JANUARY 2025

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<b>IDENTITY/TEST</b>	<b>SPECIFICATION</b>	<b>RESULT</b>
Composition	5 - ureidohydantoin	
Appearance	White, odourless crystalline powder	Conforms
Purity (potentiometric)	98.0 – 101.0%	99.49
Melting Point	224 – 232°C	228
Moisture Content	0.1% max	Conforms
pH (0.5% solution) @ 25°C	4.0 – 6.0	4.4
Sulphated Ash	0.1% max	Conforms
Heavy Metals (as Pb)	15 ppm max	Conforms
Iron	10 ppm max	Conforms
Arsenic	2 ppm max	Conforms
Bulk Density	0.7 kg / m <sup>3</sup>	Conforms
Solubility	Fully miscible with water & ethanol	Conforms
Microbiological purity	< 10 CFU / g. (aerobes & anaerobes) pathogens absent	<10



## **ALLANTOIN PRODUCT STATEMENT**

**MATERIAL TRADE NAME:** ALLANTOIN

**CHEMICAL NAME:** Glyoxyldiureide

**CAS NUMBER:** 97-59-6

**EINECS NUMBER:** 202-592-8

**TARIFF CODE:** 29332100

**COUNTRY OF ORIGIN:** China

### **REACH (registration, evaluation and authorisation of chemicals) REGULATION STATEMENT**

ALLANTOIN is classified as a substance, REACH Registration Number: 01-2119953242-43-XXXX.

In addition, we hereby confirm that ALLANTOIN does not contain any Substances of Very High Concern (SVHC).

### **ALLERGENS AND INTOLERANCES (EU Directive 1169/2011)**

We hereby confirm that ALLANTOIN does not contain any substances or products that cause allergies or intolerances listed in Annex II of EU Directive 1169/2011.

### **IFRA 49 STATEMENT**

ALLANTOIN is purely of synthetic origin and is not classed as fragrance compound.

### **VEGAN STATEMENT**

ALLANTOIN is purely of synthetic origin and is suitable for vegans.

### **BSE/TSE STATEMENT**

ALLANTOIN is purely of synthetic origin and no raw materials or additives used in the manufacture of ALLANTOIN are derived from animal origin. During manufacture or packing ALLANTOIN never comes into contact with animal or bovine material. Therefore, any risk that ALLANTOIN carries Spongiform or BSE viruses can be excluded.

### **HALAL STATEMENT**

ALLANTOIN is purely of synthetic origin and meets the following requirements:

Does not contain any traces of pork (porcine).

Does not contain any animal products.

No ethanol is used in the manufacturing process.

### **NON-ANIMAL TESTING DECLARATION**

ALLANTOIN has not been tested on animals since 31/12/1985.

### **CARCINOGENIC, MUTAGENIC, REPROTOXIC (CMR) ATTESTATION**

(Evaluation in accordance with European Directive 1272/2008/EEC)

ALLANTOIN does not contain any substances listed CMR 1A, 1B and 2 above the threshold limit in accordance with European Directive 1272/2008/EEC.

### **GMO FREE STATEMENT**

ALLANTOIN is purely of synthetic origin and no raw materials or additives used in the manufacture of ALLANTOIN are derived from GMO materials. Therefore, to the best of our knowledge and belief ALLANTOIN is GMO free

### **CALIFORNIA PROPOSITION 65 DECLARATION**

To the best of our knowledge and belief, ALLANTOIN does not contain any contaminants or bi-products known to the State of California to cause cancer or reproductive toxicity as listed under Proposition 65 State Drinking Water and Toxic Enforcement Act.



### **NANO MATERIALS DECLARATION**

We confirm that to the best of our knowledge and belief ALLANTOIN does not contain any materials defined as nanomaterials in accordance with the Cosmetic Regulation 1223/2009/EC.

### **CERTIFICATE OF ORIGIN**

We hereby confirm that ALLANTOIN is purely of synthetic origin.

### **COSMETIC REGULATION EC 1223/2009 COMPLIANCE**

We hereby confirm that ALLANTOIN complies with the Cosmetic Regulation EC 1223/2009 (as amended) and can be used as an ingredient in cosmetic applications. In addition:

- ALLANTOIN is not listed in Annex II to VI of the cosmetic legislation 1223/2009 (as amended).
- ALLANTOIN does not contain any significant levels of forbidden /restricted substances (listed in annex II to VI of 1223/2009/EC and its amendments) at detectable level. However, according to art.17, traces levels (technically unavoidable in good manufacturing practices) of non-intended prohibited substance could be present but are not expected.

### **HEAVY METALS STATEMENT**

ALLANTOIN contains heavy metals (as Pb): 15 ppm max.

### **ICH/VICH/USP GUIDELINES ON RESIDUAL SOLVENTS**

In accordance with ICH-guideline CPMP/ICH/283/95, VICH guideline CVMP/VICH/502/99 and USP requirements stated in Residual Solvents <467> together with information on Impurities in Official Articles <1086> the following residual solvents are present:

Class 1, 2, 3: none

USP Residual Solvents <467> table 4 (not limited to class 1, 2, 3 and table 4 solvents listed in USP <467> document): none

### **COLOURS STATEMENT**

ALLANTOIN does not contain the colours E102, E104, E110, E122, E124 or E129.

### **MICROBIOLOGY STATEMENT**

ALLANTOIN is not expected to contain any microbes due to the nature of the product.

### **MYCOTOXINS STATEMENT**

ALLANTOIN does not contain any mycotoxins.

### **PESTICIDE RESTICIDE STATEMENT**

ALLANTOIN does not contain any pesticides.

### **IRRADIATION STATEMENT**

ALLANTOIN is not subjected to irradiation during the manufacturing process

### **DIOXIN STATEMENT**

ALLANTOIN does not contain any raw material contaminated with dioxin nor do we believe that the product is contaminated with dioxin by way of the manufacturing process.

### **LATEX STATEMENT**

ALLANTOIN does not contain any raw material contaminated with latex nor do we believe that the product is contaminated with latex by way of the manufacturing process.

### **POLYCYLIC AROMATIC HYDROCARBONS (PAH) and POLYCHLORINATED BIPHENYL (PCB) STATEMENT**

ALLANTOIN does not contain polycyclic aromatic hydrocarbons (PAH) or polychlorinated biphenyl (PCB).

### **PHTHALATE STATEMENT**

ALLANTOIN does not contain phthalates.

## **VOLATILE ORGANIC COMPOUND STATEMENT**

ALLANTOIN does not contain volatile organic compounds (VOCs).

## **SECONDARY AMINES, NITROSAMINES & PETROLEUM STATEMENT**

We hereby confirm ALLANTOIN does not contain any secondary amines, nitrosamines or petroleum products.

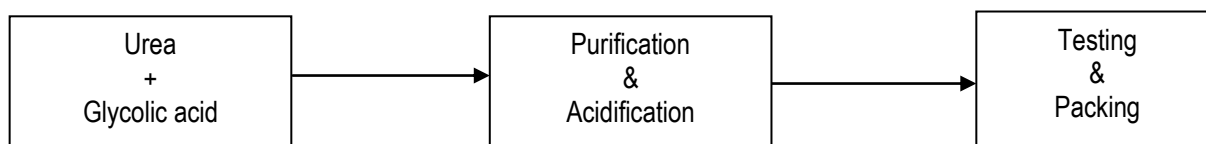
## **MOSH/MOAH STATEMENT**

ALLANTOIN is purely of synthetic origin and no raw materials or additives used in the manufacture of ALLANTOIN are derived from Mineral Oils Saturated Hydrocarbons (MOSH)/Mineral Oils Aromatic Hydrocarbons (MOAH). During manufacture or packing ALLANTOIN never comes into contact with MOSH/MOAH.

## **ISO 16128-1:2016**

We hereby confirm that ALLANTOIN is purely of synthetic origin and no natural and/or organic ingredients are used in the manufacturing process. Therefore ISO 16128-1:2016 is not applicable.

## **MANUCATURING FLOW CHART**



## **MANUFACTURING PLANT CERTIFICATION**

The manufacturing plant is ISO 9001:2015 certified.

10<sup>th</sup> November 2020



## SAFETY DATA SHEET ALLANTOIN

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

#### 1.1. Product identifier

Product name	ALLANTOIN
Chemical name	1-(2,5-dioximidazolidin-4-yl)urea
Product number	20035
Internal identification	SDS Number 20140
Synonyms; trade names	5-Ureidohydantoin; Glyoxyldiureide
REACH registration number	01-2119953242-43-XXXX
CAS number	97-59-6
EC number	202-592-8

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

Identified uses	Skin protectant
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#### 1.3. Details of the supplier of the safety data sheet

Supplier	<b>Madar Corporation Limited</b> <b>19 - 20 Sandleheath Industrial Estate</b> <b>Fordingbridge</b> <b>United Kingdom</b> <b>T: +44(0)1425 655 555</b>  <b>E: technical@madarcorporation.co.uk</b>
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#### 1.4. Emergency telephone number

Emergency telephone	<b>+44(0)1425 655 555 (0900 - 1700hrs GMT)</b>
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### SECTION 2: Hazards identification

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

##### Classification (EC 1272/2008)

Physical hazards	Not Classified
Health hazards	Not Classified
Environmental hazards	Not Classified

#### 2.2. Label elements

EC number	202-592-8
Hazard statements	NC Not Classified

# ALLANTOIN

**Precautionary statements** P262 Do not get in eyes, on skin, or on clothing.  
P280 Wear protective clothing, gloves, eye and face protection.  
P403+P233 Store in a well-ventilated place. Keep container tightly closed.

## 2.3. Other hazards

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

<b>Product name</b>	ALLANTOIN
<b>Chemical name</b>	1-(2,5-dioxoimidazolidin-4-yl)urea
<b>REACH registration number</b>	01-2119953242-43-XXXX
<b>CAS number</b>	97-59-6
<b>EC number</b>	202-592-8
<b>Ingredient notes</b>	Allantoin

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

<b>General information</b>	First aid personnel should wear appropriate protective equipment during any rescue. Show this Safety Data Sheet to the medical personnel.
<b>Inhalation</b>	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. For breathing difficulties, oxygen may be necessary. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Get medical attention.
<b>Ingestion</b>	Never give anything by mouth to an unconscious person. Do not induce vomiting. Rinse nose, mouth and throat with water. Get medical attention.
<b>Skin contact</b>	Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if irritation persists after washing.
<b>Eye contact</b>	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes and get medical attention.

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

<b>Inhalation</b>	Dust may irritate the respiratory system.
<b>Ingestion</b>	No adverse effects known.
<b>Skin contact</b>	No adverse effects known.
<b>Eye contact</b>	Particles in the eyes may cause irritation and smarting.

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

<b>Notes for the doctor</b>	Treat symptomatically.
<b>Specific treatments</b>	Treat symptomatically.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

<b>Suitable extinguishing media</b>	Extinguish with foam, carbon dioxide, dry powder or water fog.
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.

## ALLANTOIN

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

<b>Specific hazards</b>	Dust may form explosive mixture with air.
<b>Hazardous combustion products</b>	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

### 5.3. Advice for firefighters

<b>Protective actions during firefighting</b>	Use special protective clothing. Take precautionary measures against static discharge. Ground container and transfer equipment to eliminate static electric sparks. Control run-off water by containing and keeping it out of sewers and watercourses.
<b>Special protective equipment for firefighters</b>	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

## SECTION 6: Accidental release measures

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

<b>Personal precautions</b>	Ensure procedures and training for emergency decontamination and disposal are in place. No smoking, sparks, flames or other sources of ignition near spillage. For personal protection, see Section 8.
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### 6.2. Environmental precautions

<b>Environmental precautions</b>	Collect and dispose of spillage as indicated in Section 13. Do not discharge into drains or watercourses or onto the ground. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.
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### 6.3. Methods and material for containment and cleaning up

<b>Methods for cleaning up</b>	Eliminate all sources of ignition. No smoking, sparks, flames or other sources of ignition near spillage. Provide adequate ventilation. Collect powder using special dust vacuum cleaner with particle filter or carefully sweep into suitable waste disposal containers and seal securely. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. Avoid generation and spreading of dust. Wash thoroughly after dealing with a spillage.
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### 6.4. Reference to other sections

<b>Reference to other sections</b>	See section 1 for emergency contact information. See section 2 for hazard identification. See section 7 for information on safe handling. See section 8 for information on personal protective equipment. See section 12 for additional information on ecological hazards. See section 13 for information on disposal.
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## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

<b>Usage precautions</b>	Avoid inhalation of dust and contact with skin and eyes. Provide adequate ventilation. Dust may form explosive mixture with air. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharges.
<b>Advice on general occupational hygiene</b>	Do not eat, drink or smoke when using this product. Eye wash facilities and emergency shower must be available when handling this product. Wash contaminated clothing before reuse. No specific hygiene procedures recommended but good personal hygiene practices should always be observed when working with chemical products.

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

## ALLANTOIN

**Storage precautions** Store in tightly-closed, original container in a dry and cool place. Keep away from food, drink and animal feeding stuffs. Store away from the following materials: Oxidising materials. Strong acids. Strong alkalis.

**Storage class** Chemical storage.

### 7.3. Specific end use(s)

**Specific end use(s)** The identified uses for this product are detailed in Section 1.2.

## SECTION 8: Exposure controls/Personal protection

### 8.1. Control parameters

#### Occupational exposure limits

No exposure limits noted for the ingredient(s).

### 8.2. Exposure controls

#### Protective equipment



#### **Appropriate engineering controls**

Provide adequate general and local exhaust ventilation.

#### **Eye/face protection**

Use approved safety goggles or face shield. Personal protective equipment for eye and face protection should comply with European Standard EN166.

#### **Hand protection**

The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. To protect hands from chemicals, gloves should comply with European Standard EN374.

#### **Other skin and body protection**

Wear appropriate clothing to prevent any possibility of skin contact. Wear chemical protective clothing (overall with long sleeves, two piece suit resistant to chemical splashes or chemical resistant disposable coveralls) according to EN 465.  
Wear chemical resistant safety shoes according to EN 13832.

#### **Hygiene measures**

Use engineering controls to reduce air contamination to permissible exposure level. Eye wash facilities and emergency shower must be available when handling this product. Wash contaminated clothing before reuse. No specific hygiene procedures recommended but good personal hygiene practices should always be observed when working with chemical products.

#### **Respiratory protection**

If ventilation is inadequate, suitable respiratory protection must be worn.  
Full face mask respirators with replaceable filter cartridges should comply with European Standard EN136.  
Half mask and quarter mask respirators with replaceable filter cartridges should comply with European Standard EN140.

#### **Environmental exposure controls**

Take all necessary precautions to avoid the accidental release of the product into environment.

## SECTION 9: Physical and chemical properties

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

**Appearance** Crystalline powder.

**Colour** White.

**Odour** Characteristic.

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## ALLANTOIN

<b>Odour threshold</b>	Not available.
<b>pH</b>	pH (diluted solution): 4.0 - 6.0 (0.5%)
<b>Melting point</b>	230°C
<b>Initial boiling point and range</b>	Not available.
<b>Flash point</b>	Not available.
<b>Evaporation rate</b>	Not applicable.
<b>Evaporation factor</b>	Not applicable.
<b>Flammability (solid, gas)</b>	Not available.
<b>Upper/lower flammability or explosive limits</b>	Not available.
<b>Other flammability</b>	Not available.
<b>Vapour pressure</b>	Not available.
<b>Vapour density</b>	Not available.
<b>Relative density</b>	Not available.
<b>Bulk density</b>	~ 0.7 kg/m <sup>3</sup>
<b>Solubility(ies)</b>	Slightly soluble in water. 1 g/190 ml water.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition Temperature</b>	Not available.
<b>Viscosity</b>	Not applicable.
<b>Explosive properties</b>	Product is not explosive. However formation of explosive air/dust mixtures is possible.
<b>Explosive under the influence of a flame</b>	Not determined
<b>Oxidising properties</b>	Not determined.

### 9.2. Other information

<b>Molecular weight</b>	158.12
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## SECTION 10: Stability and reactivity

### 10.1. Reactivity

<b>Reactivity</b>	There are no known reactivity hazards associated with this product.
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### 10.2. Chemical stability

<b>Stability</b>	Stable at normal ambient temperatures and when used as recommended.
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### 10.3. Possibility of hazardous reactions

<b>Possibility of hazardous reactions</b>	None known.
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### 10.4. Conditions to avoid

<b>Conditions to avoid</b>	Avoid exposure to high temperatures or direct sunlight. Avoid heat, flames and other sources of ignition. Avoid dust close to ignition sources. Water, moisture.
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### 10.5. Incompatible materials

# ALLANTOIN

**Materials to avoid** Strong oxidising agents. Strong acids. Strong alkalis.

## 10.6. Hazardous decomposition products

**Hazardous decomposition products** Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### Acute toxicity - oral

**Notes (oral LD<sub>50</sub>)** LD<sub>50</sub> 5000 mg/kg bw, Oral, Rat

#### Acute toxicity - dermal

**Notes (dermal LD<sub>50</sub>)** LD<sub>50</sub> 5000 mg/kg bw, Dermal, Rabbit

#### Acute toxicity - inhalation

**Notes (inhalation LC<sub>50</sub>)** No information available.

#### Skin corrosion/irritation

**Skin corrosion/irritation** Based on available data the classification criteria are not met.

#### Serious eye damage/irritation

**Serious eye damage/irritation** Based on available data the classification criteria are not met.

#### Respiratory sensitisation

**Respiratory sensitisation** Not available.

#### Skin sensitisation

**Skin sensitisation** Based on available data the classification criteria are not met.

#### Germ cell mutagenicity

**Genotoxicity - in vitro** Based on available data the classification criteria are not met.

#### Carcinogenicity

**Carcinogenicity** Based on available data the classification criteria are not met.

#### Reproductive toxicity

**Reproductive toxicity - fertility** Based on available data the classification criteria are not met.

#### Specific target organ toxicity - single exposure

**STOT - single exposure** Endpoint waived according to REACH Annex VII, IX or XI.

#### Specific target organ toxicity - repeated exposure

**STOT - repeated exposure** LOELs 989 mg/kg/day, Category approach: 1743 mg/kg/day trend analysis for rat; 1000 mg/kg/day read-across for rat., Rat, Mouse

#### Aspiration hazard

**Aspiration hazard** No data available

## SECTION 12: Ecological information

### 12.1. Toxicity

#### Acute aquatic toxicity

**Acute toxicity - fish** LC<sub>50</sub>, 96 hours: >5000 mg/l, Fish

**Acute toxicity - aquatic invertebrates** EC<sub>50</sub>, 48 hours: >100 mg/l, Daphnia magna

**Acute toxicity - aquatic plants** EC<sub>50</sub>, 72 hours: >100 mg/l, Desmodium subspicatum  
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## ALLANTOIN

**Acute toxicity - microorganisms** NOEC, : >1000 mg/l, Microorganisms, (OECD 209)

**Acute toxicity - terrestrial** Scientifically unjustified.

### 12.2. Persistence and degradability

**Persistence and degradability** The product is readily biodegradable. >76% 28, days

### 12.3. Bioaccumulative potential

**Bioaccumulative potential** Bioaccumulation is unlikely. log Kow: ≤ 3, Aquatic organisms

### 12.4. Mobility in soil

**Mobility** The product has poor water-solubility.

**Adsorption/desorption coefficient** The substance is readily biodegradable, therefore requirement to test for adsorption/desorption is waived.

### 12.5. Results of PBT and vPvB assessment

**Results of PBT and vPvB assessment** This product does not contain any substances classified as PBT or vPvB.

### 12.6. Other adverse effects

**Other adverse effects** Any other adverse effects on the environment are not expected.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

**Disposal methods** The generation of waste should be minimised or avoided wherever possible. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

## SECTION 14: Transport information

**General** The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

### 14.1. UN number

### 14.2. UN proper shipping name

### 14.3. Transport hazard class(es)

### 14.4. Packing group

### 14.5. Environmental hazards

### 14.6. Special precautions for user

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

## SECTION 15: Regulatory information

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

**National regulations** REACH etc. (Amendment etc.) (EU Exit) Regulations 2019  
The CLP Regulation  
Health and Safety at Work etc. Act 1974 (as amended).  
EH40/2005 Workplace exposure limits.

## ALLANTOIN

### EU legislation

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).

Commission Regulation (EU) No 2015/830 of 28 May 2015.

### 15.2. Chemical safety assessment

A chemical safety assessment has been carried out.

### Inventories

### Remarks:

SECTION 16: Other information

## ALLANTOIN

### Classification abbreviations and acronyms

AND – European Agreement concerning the Carriage of Dangerous Good by inland Waterways
ADR – European Agreement concerning the Carriage of Dangerous Good by Road
AICS – Australian Inventory of Chemical Substances
ANSI – American National Standards Institute
ATE – Acute Toxicity Estimate
ASTM – American Society of Testing and Materials (US)
BCF – Bio-concentration factor
BOD – Biochemical Oxygen Demand
BODIS – Biodegradability of Insoluble Substances
CAS – Chemical Abstract Service
Catpe – Converted Acute Toxicity Point Estimate
CLP – Regulation on Classification, Labelling and Packaging of Substances and Mixtures
COD – Chemical Oxygen Demand
DIN – Deutsches Institut für Normung (German institute of standardisation)
DMEL – Derived Minimal Effect Level
DNEL – Derived No-Effect Level
DSL – Domestic Substances List
EC... – Effect concentration ... %
EINECS – European Inventory of Existing Commercial Substances
ELINCS – European Inventory of Notified Substances
ENCS – Existing Notified Chemical Substances (Japan)
EWC – European Waste Catalogue
IARC – International Agency for Research on Cancer
IATA – International Air Transport Association
IBC – Intermediate Bulk Container
ICAO – International Civil Aviation Organization
IECSC – Chinese Chemical Inventory of Existing Chemical Substances
IMDG – International Maritime Dangerous Goods
IMO – International Maritime Organization
ISHL – Industrial Safety and Health Law (Japan)
ISO – International Organization for Standardization
IUAPC – International Union of Pure and Applied Chemistry
KECI – Korea Existing Chemicals Inventory
Koc – Organic-water Partition Coefficient
Kow – Octanol-water Partition Coefficient
LC... – Lethal Concentration, ...%
LD... – Lethal Dose, ...%
MARPOL – International Convention for the Prevention of Pollution From Ships
MITI – Ministry of International Trade and Industry (Japan)
NDSL – Non-Domestic Substances List
NECI – National Existing Chemical Inventory (Taiwan)
NOAEL – No observable adverse effect level
NOEL/NOEC – No Observed-effect level/concentration
NTP – National Toxicity Program
NZIoC – New Zealand Inventory of Chemicals
OECD – Organisation for Economic Co-operation and Development
PBT – Persistent, bioaccumulative, toxic
PICCS – Philippine Inventory of Chemicals and Chemical Substances
PNEC – Predicted No-Effect Concentration
Pow – Octanol-water Partition Coefficient
PSN – Proper Shipping Name
REACH – Registration, Evaluation, Authorisation and Restriction of Chemicals
RID – Regulations Concerning the International Transport of Dangerous Goods by Rail
STOT – Specific Target Organ Toxicity
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TG – Test Guideline  
TRGS – The Technical Rules for Hazardous Substances  
TSCA – Toxic Substances Control Act  
vPvB – very Persistent, very Bioaccumulative  
WGK – German Water Hazard Class

<b>Revision comments</b>	All sections updated.
<b>Revision date</b>	20/05/2021
<b>Revision</b>	2
<b>SDS number</b>	20140

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.

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**PRODUCT SPECIFICATION SHEET**
**ALLANTOIN**

<b>PROPERTY</b>	<b>SPECIFICATION</b>
CTFA Name	Allantoin
Synonyms	1-(2,5-dioxoimidazolidin-4-yl)urea
Composition	Glyoxyldiureide, 5 - ureidohydantoin
Empirical Formula	C <sub>4</sub> H <sub>6</sub> O <sub>3</sub> N <sub>4</sub>
Molecular Weight	158.12
CAS Number	97-59-6
EINECS Number	202-592-8
Pharmacopoeia Status	Conforms to USP, BP & Ph. Eur. monographs
Identification (A-D)	Conforms to the pharmacopoeia monographs
Appearance	White, odourless crystalline powder
Purity (potentiometric)	98.0 – 101.0 %
Melting Point	224 – 232°C
Optical Rotation	-0.10° to +0.1°
Loss on Drying (100-105°C)	0.1% max
pH (0.5% solution) @ 25°C	4.0 – 6.0
Sulphated Ash	0.1% max
Heavy Metals (Total as Pb)	15 ppm max
Iron	10 ppm max
Arsenic	1 ppm max
Bulk Density	0.7 kg/m <sup>3</sup>
Solubility	Slightly soluble in water; very slightly soluble in alcohol
Microbiological purity	<10 CFU/g (aerobes & anaerobes); Pathogens absent
Packaging	25 kg net in HDPE drums
Storage Conditions	Store in original containers, tightly closed and properly labelled. Store in a cool, dry, well-ventilated area, away from direct sunlight, heat and sources of ignition.