

**Cloxacillin / Ampicillin Formulation**

Version 1.3      Revision Date: 30.09.2023      SDS Number: 10843362-00004      Date of last issue: 09.08.2023  
Date of first issue: 30.08.2022

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**SECTION 1: IDENTIFICATION**

Product name : Cloxacillin / Ampicillin Formulation

**Manufacturer or supplier's details**

Company : MSD

Address : 91-105 Harpin Street  
Bendigo 3550, Victoria Australia

Telephone : 1 800 033 461

Emergency telephone number : Poisons Information Centre: Phone 13 11 26

E-mail address : EHSDATASTEWARD@msd.com

**Recommended use of the chemical and restrictions on use**

Recommended use : Veterinary product

Restrictions on use : Not applicable


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**SECTION 2. HAZARDS IDENTIFICATION****GHS Classification**

Respiratory sensitisation : Category 1

Skin sensitisation : Category 1

**GHS label elements**

Hazard pictograms : 

Signal word : Danger

Hazard statements : H317 May cause an allergic skin reaction.  
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Precautionary statements : **Prevention:**  
P261 Avoid breathing vapours.  
P272 Contaminated work clothing should not be allowed out of the workplace.  
P280 Wear protective gloves.  
P284 Wear respiratory protection.

**Response:**

P302 + P352 IF ON SKIN: Wash with plenty of water.

## Cloxacillin / Ampicillin Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 09.08.2023
1.3	30.09.2023	10843362-00004	Date of first issue: 30.08.2022

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
 P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.  
 P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER/ doctor.  
 P362 + P364 Take off contaminated clothing and wash it before reuse.

**Disposal:**

P501 Dispose of contents/ container to an approved waste disposal plant.

**Other hazards which do not result in classification**

None known.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance / Mixture : Mixture

**Components**

Chemical name	CAS-No.	Concentration (% w/w)
White mineral oil (petroleum)	8042-47-5	>= 60 -<= 100
cloxacillin	61-72-3	>= 10 -< 30
ampicillin	69-53-4	>= 1 -< 10
Hydroxylaluminum distearate	300-92-5	< 10

**SECTION 4. FIRST AID MEASURES**

General advice : In the case of accident or if you feel unwell, seek medical advice immediately.  
 When symptoms persist or in all cases of doubt seek medical advice.

If inhaled : If inhaled, remove to fresh air.  
 If not breathing, give artificial respiration.  
 If breathing is difficult, give oxygen.  
 Get medical attention.

In case of skin contact : In case of contact, immediately flush skin with soap and plenty of water.  
 Remove contaminated clothing and shoes.  
 Get medical attention.  
 Wash clothing before reuse.  
 Thoroughly clean shoes before reuse.

In case of eye contact : Flush eyes with water as a precaution.  
 Get medical attention if irritation develops and persists.

If swallowed : If swallowed, DO NOT induce vomiting.  
 Get medical attention if symptoms occur.  
 Rinse mouth thoroughly with water.

Most important symptoms and effects, both acute and : May cause an allergic skin reaction.  
 May cause allergy or asthma symptoms or breathing difficul-

## Cloxacillin / Ampicillin Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 09.08.2023
1.3	30.09.2023	10843362-00004	Date of first issue: 30.08.2022

---

delayed ties if inhaled.  
Excessive exposure may aggravate preexisting asthma and other respiratory disorders (e.g. emphysema, bronchitis, reactive airways dysfunction syndrome).

Protection of first-aiders : First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists (see section 8).

Notes to physician : Treat symptomatically and supportively.

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### SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Water spray  
Alcohol-resistant foam  
Carbon dioxide (CO<sub>2</sub>)  
Dry chemical

Unsuitable extinguishing media : None known.

Specific hazards during fire-fighting : Exposure to combustion products may be a hazard to health.

Hazardous combustion products : Carbon oxides  
Chlorine compounds  
Nitrogen oxides (NO<sub>x</sub>)  
Sulphur compounds  
Sulphur oxides  
Metal oxides

Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.  
Use water spray to cool unopened containers.  
Remove undamaged containers from fire area if it is safe to do so.  
Evacuate area.

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.  
Use personal protective equipment.

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### SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.  
Follow safe handling advice (see section 7) and personal protective equipment recommendations (see section 8).

Environmental precautions : Avoid release to the environment.  
Prevent further leakage or spillage if safe to do so.  
Prevent spreading over a wide area (e.g. by containment or oil barriers).  
Retain and dispose of contaminated wash water.  
Local authorities should be advised if significant spillages cannot be contained.

Methods and materials for containment and cleaning up : Soak up with inert absorbent material.  
For large spills, provide dyking or other appropriate containment to keep material from spreading. If dyked material can be pumped, store recovered material in appropriate container.

## Cloxacillin / Ampicillin Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 09.08.2023
1.3	30.09.2023	10843362-00004	Date of first issue: 30.08.2022

Clean up remaining materials from spill with suitable absorbent.  
Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable.  
Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

### SECTION 7. HANDLING AND STORAGE

- |                             |   |  |
|-----------------------------|---|--|
| Technical measures          | : | See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.  |
| Local/Total ventilation     | : | Use only with adequate ventilation.  |
| Advice on safe handling     | : | Do not get on skin or clothing.<br>Avoid breathing vapours.<br>Do not swallow.<br>Avoid contact with eyes.<br>Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure assessment<br>Keep container tightly closed.<br>Already sensitised individuals, and those susceptible to asthma, allergies, chronic or recurrent respiratory disease, should consult their physician regarding working with respiratory irritants or sensitisers.<br>Take care to prevent spills, waste and minimize release to the environment. |
| Hygiene measures            | : | If exposure to chemical is likely during typical use, provide eye flushing systems and safety showers close to the working place.<br>When using do not eat, drink or smoke.<br>Contaminated work clothing should not be allowed out of the workplace.<br>Wash contaminated clothing before re-use.<br>The effective operation of a facility should include review of engineering controls, proper personal protective equipment, appropriate degowning and decontamination procedures, industrial hygiene monitoring, medical surveillance and the use of administrative controls.   |
| Conditions for safe storage | : | Keep in properly labelled containers.<br>Keep tightly closed.<br>Store in accordance with the particular national regulations.   |
| Materials to avoid          | : | No special restrictions on storage with other products.  |

### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Components with workplace control parameters

Components	CAS-No.	Value type (Form of	Control parameters / Permissible	Basis

## Cloxacillin / Ampicillin Formulation

Version 1.3      Revision Date: 30.09.2023      SDS Number: 10843362-00004      Date of last issue: 09.08.2023  
 Date of first issue: 30.08.2022

		exposure)	concentration	
White mineral oil (petroleum)	8042-47-5	TWA (Mist)	5 mg/m <sup>3</sup>	AU OEL
		TWA (Inhalable particulate matter)	5 mg/m <sup>3</sup>	ACGIH
cloxacillin	61-72-3	TWA	100 µg/m <sup>3</sup> (OEB 2)	Internal
	Further information: RSEN, DSEN			
		Wipe limit	100 µg/100 cm <sup>2</sup>	Internal
ampicillin	69-53-4	TWA	0.6 mg/m <sup>3</sup> (OEB 2)	Internal
	Further information: RSEN			
Hydroxylaluminum distearate	300-92-5	TWA	10 mg/m <sup>3</sup>	AU OEL
		TWA (Inhalable particulate matter)	10 mg/m <sup>3</sup>	ACGIH
		TWA (Respirable particulate matter)	3 mg/m <sup>3</sup>	ACGIH
		TWA (Respirable particulate matter)	1 mg/m <sup>3</sup> (Aluminium)	ACGIH

**Engineering measures** : Use appropriate engineering controls and manufacturing technologies to control airborne concentrations (e.g., dripless quick connections).  
 All engineering controls should be implemented by facility design and operated in accordance with GMP principles to protect products, workers, and the environment.  
 Laboratory operations do not require special containment.

**Personal protective equipment**

Respiratory protection : If adequate local exhaust ventilation is not available or exposure assessment demonstrates exposures outside the recommended guidelines, use respiratory protection.

Filter type : Combined particulates and organic vapour type

Hand protection  
 Material : Chemical-resistant gloves

Eye protection : Wear safety glasses with side shields or goggles.  
 If the work environment or activity involves dusty conditions, mists or aerosols, wear the appropriate goggles.  
 Wear a faceshield or other full face protection if there is a potential for direct contact to the face with dusts, mists, or aerosols.

Skin and body protection : Work uniform or laboratory coat.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

**Cloxacillin / Ampicillin Formulation**

Version	Revision Date:	SDS Number:	Date of last issue: 09.08.2023
1.3	30.09.2023	10843362-00004	Date of first issue: 30.08.2022

---

Appearance	:	cream
Colour	:	off-white
Odour	:	No data available
Odour Threshold	:	No data available
pH	:	No data available
Melting point/freezing point	:	No data available
Initial boiling point and boiling range	:	No data available
Flash point	:	No data available
Evaporation rate	:	Not applicable
Flammability (solid, gas)	:	No data available
Flammability (liquids)	:	No data available
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Vapour pressure	:	Not applicable
Relative vapour density	:	Not applicable
Relative density	:	No data available
Density	:	No data available
Solubility(ies)		
Water solubility	:	No data available
Partition coefficient: n-octanol/water	:	Not applicable
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity		
Viscosity, kinematic	:	Not applicable
Explosive properties	:	Not explosive

**Cloxacillin / Ampicillin Formulation**

Version	Revision Date:	SDS Number:	Date of last issue: 09.08.2023
1.3	30.09.2023	10843362-00004	Date of first issue: 30.08.2022

---

Oxidizing properties : The substance or mixture is not classified as oxidizing.

Molecular weight : No data available

Particle size : < 30 µm

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**SECTION 10. STABILITY AND REACTIVITY**

Reactivity : Not classified as a reactivity hazard.

Chemical stability : Stable under normal conditions.

Possibility of hazardous reactions : None known.

Conditions to avoid : None known.

Incompatible materials : None.

Hazardous decomposition products : No hazardous decomposition products are known.

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**SECTION 11. TOXICOLOGICAL INFORMATION**

Exposure routes : Inhalation  
Skin contact  
Ingestion  
Eye contact

**Acute toxicity**

Not classified based on available information.

**Components:****White mineral oil (petroleum):**

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 5 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg  
Assessment: The substance or mixture has no acute dermal toxicity

**cloxacillin:**

Acute oral toxicity : LD50 (Rat): 5,000 mg/kg  
LD50 (Mouse): 5,000 mg/kg

Acute toxicity (other routes of administration) : LD50 (Mouse): 1,117 mg/kg  
Application Route: Intramuscular  
LD50 (Mouse): 916 mg/kg

---

**Cloxacillin / Ampicillin Formulation**

Version	Revision Date:	SDS Number:	Date of last issue: 09.08.2023
1.3	30.09.2023	10843362-00004	Date of first issue: 30.08.2022

---

Application Route: Intravenous

LD50 (Mouse): 1,500 mg/kg  
Application Route: SubcutaneousLD50 (Rat): 1,660 mg/kg  
Application Route: IntravenousLD50 (Rat): 4,200 mg/kg  
Application Route: Subcutaneous**ampicillin:**

Acute oral toxicity : LD50 (Rat): 10,000 mg/kg

LD50 (Mouse): 15,200 mg/kg

Acute toxicity (other routes of administration) : LD50 (Rat): 6,200 mg/kg  
Application Route: IntravenousLD50 (Mouse): 4,600 mg/kg  
Application Route: Intravenous**Hydroxyaluminum distearate:**Acute oral toxicity : LD50 (Rat, female): > 2,000 mg/kg  
Method: OECD Test Guideline 423  
Remarks: Based on data from similar materialsAcute inhalation toxicity : LC50 (Rat): > 5.15 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Method: OECD Test Guideline 403**Skin corrosion/irritation**

Not classified based on available information.

**Components:****White mineral oil (petroleum):**Species : Rabbit  
Result : No skin irritation**cloxacillin:**

Remarks : Not classified due to lack of data.

**Hydroxyaluminum distearate:**Species : reconstructed human epidermis (RhE)  
Method : OECD Test Guideline 431  
Remarks : Based on data from similar materials



**Cloxacillin / Ampicillin Formulation**

Version	Revision Date:	SDS Number:	Date of last issue: 09.08.2023
1.3	30.09.2023	10843362-00004	Date of first issue: 30.08.2022

---

Species : reconstructed human epidermis (RhE)  
Method : OECD Test Guideline 439  
Remarks : Based on data from similar materials

Result : No skin irritation

**Serious eye damage/eye irritation**

Not classified based on available information.

**Components:****White mineral oil (petroleum):**

Species : Rabbit  
Result : No eye irritation

**cloxacillin:**

Remarks : Not classified due to lack of data.

**Hydroxyaluminum distearate:**

Species : Bovine cornea  
Method : OECD Test Guideline 437  
Remarks : Based on data from similar materials

Result : No eye irritation

**Respiratory or skin sensitisation****Skin sensitisation**

May cause an allergic skin reaction.

**Respiratory sensitisation**

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

**Components:****White mineral oil (petroleum):**

Test Type : Buehler Test  
Exposure routes : Skin contact  
Species : Guinea pig  
Result : negative

**cloxacillin:**

Exposure routes : Dermal  
Assessment : Probability or evidence of skin sensitisation in humans  
Result : positive

Assessment : Probability of respiratory sensitisation in humans based on animal testing  
Result : positive

**Cloxacillin / Ampicillin Formulation**

Version 1.3      Revision Date: 30.09.2023      SDS Number: 10843362-00004      Date of last issue: 09.08.2023  
Date of first issue: 30.08.2022

---

**ampicillin:**

Exposure routes : Inhalation  
Result : Sensitiser

**Hydroxyaluminum distearate:**

Test Type : Local lymph node assay (LLNA)  
Exposure routes : Skin contact  
Species : Mouse  
Method : OECD Test Guideline 429  
Result : negative  
Remarks : Based on data from similar materials

**Chronic toxicity****Germ cell mutagenicity**

Not classified based on available information.

**Components:****White mineral oil (petroleum):**

Genotoxicity in vitro : Test Type: In vitro mammalian cell gene mutation test  
Result: negative

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)  
Species: Mouse  
Application Route: Intraperitoneal injection  
Method: OECD Test Guideline 474  
Result: negative  
Remarks: Based on data from similar materials

**cloxacillin:**

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)  
Result: negative  
Remarks: Information given is based on data obtained from similar substances.

Genotoxicity in vivo : Test Type: Micronucleus test  
Species: Mouse  
Result: negative  
Remarks: Information given is based on data obtained from similar substances.

**ampicillin:**

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)  
Result: negative

Test Type: In vitro mammalian cell gene mutation test  
Test system: mouse lymphoma cells  
Result: negative

**Cloxacillin / Ampicillin Formulation**

Version	Revision Date:	SDS Number:	Date of last issue: 09.08.2023
1.3	30.09.2023	10843362-00004	Date of first issue: 30.08.2022

---

Test Type: sister chromatid exchange assay  
Test system: Chinese hamster ovary cells  
Result: negative

Test Type: Chromosomal aberration  
Test system: Chinese hamster ovary cells  
Result: negative

Test Type: Chromosomal aberration  
Test system: Human lymphocytes  
Result: negative

Genotoxicity in vivo : Test Type: Micronucleus test  
Species: Rat  
Application Route: Oral  
Result: negative

**Hydroxyaluminum distearate:**

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)  
Method: OECD Test Guideline 471  
Result: negative  
Remarks: Based on data from similar materials

Test Type: In vitro mammalian cell gene mutation test  
Method: OECD Test Guideline 476  
Result: negative  
Remarks: Based on data from similar materials

**Carcinogenicity**

Not classified based on available information.

**Components:****White mineral oil (petroleum):**

Species : Rat  
Application Route : Ingestion  
Exposure time : 24 Months  
Result : negative

**cloxacillin:**

Remarks : Not classified due to lack of data.

**ampicillin:**

Species : Rat  
Application Route : Oral  
Exposure time : 2 Years  
: 750 mg/kg body weight  
Tumor Type : adrenal, Leukaemia, breast tumors



## Cloxacillin / Ampicillin Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 09.08.2023
1.3	30.09.2023	10843362-00004	Date of first issue: 30.08.2022

---

Effects on foetal development : Test Type: Development  
 Species: Rat  
 Developmental Toxicity: NOAEL: 250 mg/kg body weight  
 Result: No effects on foetal development

### Hydroxyaluminum distearate:

Effects on fertility : Test Type: Two-generation reproduction toxicity study  
 Species: Rat  
 Application Route: Ingestion  
 Method: OECD Test Guideline 416  
 Result: negative  
 Remarks: Based on data from similar materials

Effects on foetal development : Test Type: Two-generation reproduction toxicity study  
 Species: Rat  
 Application Route: Ingestion  
 Method: OECD Test Guideline 416  
 Result: negative  
 Remarks: Based on data from similar materials

### STOT - single exposure

Not classified based on available information.

### STOT - repeated exposure

Not classified based on available information.

### Repeated dose toxicity

#### Components:

#### White mineral oil (petroleum):

Species : Rat  
 LOAEL : 160 mg/kg  
 Application Route : Ingestion  
 Exposure time : 90 Days

Species : Rat  
 LOAEL :  $\geq 1$  mg/l  
 Application Route : inhalation (dust/mist/fume)  
 Exposure time : 4 Weeks  
 Method : OECD Test Guideline 412

#### cloxacillin:

Species : Rat  
 LOAEL : 7,000 mg/kg  
 Application Route : Intravenous  
 Exposure time : 4 Weeks  
 Symptoms : Hypoglycemia

#### ampicillin:

## Cloxacillin / Ampicillin Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 09.08.2023
1.3	30.09.2023	10843362-00004	Date of first issue: 30.08.2022

---

Species : Rat  
 LOAEL : 3,000 mg/kg  
 Application Route : Oral  
 Exposure time : 13 Weeks  
 Symptoms : Diarrhoea

Species : Mouse  
 LOAEL : 2,000 mg/kg  
 Application Route : Oral  
 Exposure time : 13 Weeks  
 Symptoms : Diarrhoea

Species : Rat  
 LOAEL : 750 mg/kg  
 Application Route : Oral  
 Exposure time : 2 yr  
 Target Organs : Thyroid, forestomach  
 Symptoms : Diarrhoea, Salivation, decreased activity

Species : Mouse  
 LOAEL : 2,000 mg/kg  
 Application Route : Oral  
 Exposure time : 2 yr  
 Target Organs : forestomach  
 Symptoms : Ulceration, Inflammation, fungal infections

**Aspiration toxicity**

Not classified based on available information.

**Experience with human exposure****Components:****cloxacillin:**

Inhalation : Remarks: May cause sensitisation of susceptible persons.  
 Skin contact : Symptoms: Dermatitis  
 Remarks: May irritate skin.  
 Eye contact : Remarks: May irritate eyes.  
 Ingestion : Symptoms: May cause, Gastrointestinal disturbance, Rash  
 Remarks: May cause sensitisation of susceptible persons.

**ampicillin:**

Inhalation : Symptoms: Asthma, Hay fever  
 Remarks: May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
 Ingestion : Symptoms: skin rash, Nausea, Diarrhoea, Vomiting, colitis, urticaria

## Cloxacillin / Ampicillin Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 09.08.2023
1.3	30.09.2023	10843362-00004	Date of first issue: 30.08.2022

## SECTION 12. ECOLOGICAL INFORMATION

## Ecotoxicity

**Components:****White mineral oil (petroleum):**

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): > 100 mg/l  
aquatic invertebrates Exposure time: 48 h  
Method: OECD Test Guideline 202

Toxicity to algae/aquatic : NOEC (Pseudokirchneriella subcapitata (green algae)): 100  
plants mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201

Toxicity to fish (Chronic tox- : NOEC (Oncorhynchus mykiss (rainbow trout)): 1,000 mg/l  
icity) Exposure time: 28 d

Toxicity to daphnia and other : NOEC (Daphnia magna (Water flea)): 1,000 mg/l  
aquatic invertebrates (Chron- Exposure time: 21 d  
ic toxicity)

**ampicillin:**

Toxicity to fish : LC50 (Oryzias latipes (Japanese medaka)): > 1,000 mg/l  
Exposure time: 96 h

LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): > 100 mg/l  
aquatic invertebrates Exposure time: 48 h

Toxicity to algae/aquatic : EC50 (Anabaena flos-aquae): 190 µg/l  
plants Exposure time: 72 h  
Method: OECD Test Guideline 201

NOEC (Anabaena flos-aquae): 13 µg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201

EC50 (Pseudokirchneriella subcapitata (green algae)): > 100  
mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201

NOEC (Pseudokirchneriella subcapitata (green algae)): 100  
mg/l

**Cloxacillin / Ampicillin Formulation**

Version 1.3      Revision Date: 30.09.2023      SDS Number: 10843362-00004      Date of last issue: 09.08.2023  
Date of first issue: 30.08.2022

---

Exposure time: 72 h  
Method: OECD Test Guideline 201

Toxicity to microorganisms : EC50: > 1,000 mg/l  
Exposure time: 3 h  
Test Type: Respiration inhibition  
Method: OECD Test Guideline 209

NOEC: 9 mg/l  
Exposure time: 3 h  
Test Type: Respiration inhibition  
Method: OECD Test Guideline 209

**Hydroxyaluminum distearate:****Ecotoxicology Assessment**

Chronic aquatic toxicity : No toxicity at the limit of solubility

**Persistence and degradability****Components:****White mineral oil (petroleum):**

Biodegradability : Result: Not readily biodegradable.  
Biodegradation: 31 %  
Exposure time: 28 d

**ampicillin:**

Biodegradability : Result: rapidly degradable  
Biodegradation: 35 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301B

**Hydroxyaluminum distearate:**

Biodegradability : Result: Readily biodegradable.  
Remarks: Based on data from similar materials

**Bioaccumulative potential****Components:****cloxacillin:**

Partition coefficient: n-octanol/water : log Pow: 2.44

**ampicillin:**

Partition coefficient: n-octanol/water : log Pow: -2.0  
pH: 7



**Cloxacillin / Ampicillin Formulation**

Version	Revision Date:	SDS Number:	Date of last issue: 09.08.2023
1.3	30.09.2023	10843362-00004	Date of first issue: 30.08.2022

---

**Hydroxyaluminum distearate:**

Partition coefficient: n-  
octanol/water : log Pow: 15.088  
Remarks: Calculation

**Mobility in soil**

No data available

**Other adverse effects**

No data available

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**SECTION 13. DISPOSAL CONSIDERATIONS****Disposal methods**

Waste from residues : Do not dispose of waste into sewer.  
Dispose of in accordance with local regulations.

Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.  
If not otherwise specified: Dispose of as unused product.

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**SECTION 14. TRANSPORT INFORMATION****International Regulations****UNRTDG**

UN number : Not applicable  
Proper shipping name : Not applicable  
Class : Not applicable  
Subsidiary risk : Not applicable  
Packing group : Not applicable  
Labels : Not applicable

**IATA-DGR**

UN/ID No. : Not applicable  
Proper shipping name : Not applicable  
Class : Not applicable  
Subsidiary risk : Not applicable  
Packing group : Not applicable  
Labels : Not applicable  
Packing instruction (cargo aircraft) : Not applicable  
Packing instruction (passenger aircraft) : Not applicable

**IMDG-Code**

UN number : Not applicable  
Proper shipping name : Not applicable  
Class : Not applicable  
Subsidiary risk : Not applicable  
Packing group : Not applicable  
Labels : Not applicable  
EmS Code : Not applicable  
Marine pollutant : Not applicable

---

**Cloxacillin / Ampicillin Formulation**

Version	Revision Date:	SDS Number:	Date of last issue: 09.08.2023
1.3	30.09.2023	10843362-00004	Date of first issue: 30.08.2022

---

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable for product as supplied.

**National Regulations****ADG**

UN number	:	Not applicable
Proper shipping name	:	Not applicable
Class	:	Not applicable
Subsidiary risk	:	Not applicable
Packing group	:	Not applicable
Labels	:	Not applicable
Hazchem Code	:	Not applicable

**Special precautions for user**

Not applicable

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**SECTION 15. REGULATORY INFORMATION****Safety, health and environmental regulations/legislation specific for the substance or mixture**

Prohibition/Licensing Requirements	:	There is no applicable prohibition, authorisation and restricted use requirements, including for carcinogens referred to in Schedule 10 of the model WHS Act and Regulations.
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**The components of this product are reported in the following inventories:**

AICS	:	not determined
DSL	:	not determined
IECSC	:	not determined

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**SECTION 16: ANY OTHER RELEVANT INFORMATION****Further information**

Revision Date	:	30.09.2023
Sources of key data used to compile the Safety Data Sheet	:	Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agency, <a href="http://echa.europa.eu/">http://echa.europa.eu/</a>
Date format	:	dd.mm.yyyy

**Full text of other abbreviations**

ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)
AU OEL	:	Australia. Workplace Exposure Standards for Airborne Contaminants.

**Cloxacillin / Ampicillin Formulation**

Version	Revision Date:	SDS Number:	Date of last issue: 09.08.2023
1.3	30.09.2023	10843362-00004	Date of first issue: 30.08.2022

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ACGIH / TWA : 8-hour, time-weighted average  
AU OEL / TWA : Exposure standard - time weighted average

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECL - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.

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