Corfit Closed AI

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

1.1. Product identifier

Trade name/designation:

Corfit Closed AI

UFI:
RRHS-71J6-8000-ASNS

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

Use of the substance/mixture:
Corrosion inhibitor

Relevant identified uses:

Life cycle stage [LCS]

IS: Use at industrial sites

PW: Widespread use by professional workers

Product Categories [PC]

PC 37: Water treatment chemicals

1.3. Details of the supplier of the safety data sheet

Supplier (manufacturer/importer/only representative/downstream user/distributor):

Sanosil
Eichtalstrasse 49
8634 Hombrechtikon Switzerland
Telephone: +41 55 254 00 54
E-mail: service@sanosil.com
Website: www.sanosil.com

1.4. Emergency telephone number

Switzerland: 145 for calls from Switzerland or
+41 (0)44 251 51 51 Swiss toxicological Information Center

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP]:

Hazard classes and hazard categories	Hazard statements	Classification pro cedure
Skin corrosion/irritation *(Skin Irrit. 2)*	H315: Causes skin irritation.	Calculation method.
Serious eye damage/eye irritation *(Eye Irrit. 2)*	H319: Causes serious eye irritation.	Calculation method.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms:

GHS07
Exclamation mark

Signal word: Warning

Hazard components for labelling:
Hydroxyphosphono-acetic acid; methyl-1H-benzotriazole

hazard statements for health hazards	
H315	Causes skin irritation.
H319	Causes serious eye irritation.

Supplemental hazard information	
EUH208	Contains Hydroxyphosphono-acetic acid. May produce an allergic reaction.

Precautionary statements Prevention	
P280	Wear protective gloves/protective clothing and eye/face protection.

Precautionary statements Response	
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P362 + P364	Take off contaminated clothing and wash it before reuse.

*
2.3. Other hazards

Adverse human health effects and symptoms:
This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

Adverse environmental effects:
The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

SECTION 3: Composition / information on ingredients

3.2. Mixtures

Hazardous ingredients / Hazardous impurities / Stabilisers:

product identifiers	Substance name Classification according to Regulation (EC) No 1272/2008 [CLP]	Concen-tration
CAS No.: 29385-43-1 **EC No.:** 249-596-6	**methyl-1H-benzotriazole** Acute Tox. 4 (H302), Aquatic Chronic 2 (H411) **Warning**	0 – ≤ 1 weight-%
CAS No.: 23783-26-8 **EC No.:** 405-710-8 **REACH No.:** 01-0000015522-77-0000	**Hydroxyphosphono-acetic acid** Acute Tox. 4 (H302), STOT RE 2 (H373**), Skin Corr. 1B (H314), Skin Sens. 1 (H317) **Danger**	0 – ≤ 0.5 weight-%

Full text of H- and EUH-phrases: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information:
In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). Remove victim out of the danger area. Remove contaminated, saturated clothing. If unconscious but breathing normally, place in recovery position and seek medical advice. Do not leave affected person unattended.

Following inhalation:
Provide fresh air. In case of respiratory tract irritation, consult a physician.

In case of skin contact:
After contact with skin, wash immediately with plenty of water and soap. If skin irritation or rash occurs: Get medical advice/attention.

After eye contact:
In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. Remove contact lenses, if present and easy to do. Continue rinsing. Protect uninjured eye.

Following ingestion:
Rinse mouth. Let 1 glass of water be drunken in little sips (dilution effect). Do NOT induce vomiting. Get medical advice/attention if you feel unwell.

Self-protection of the first aider:
Use personal protection equipment.

4.2. Most important symptoms and effects, both acute and delayed
Skin corrosion/irritation
Serious eye damage/eye irritation

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

SECTION 5: Firefighting measures

5.1. Extinguishing media
Suitable extinguishing media:
Co-ordinate fire-fighting measures to the fire surroundings.
Water spray jet
alcohol resistant foam
Carbon dioxide (CO_2)
Extinguishing powder

Unsuitable extinguishing media:
Full water jet

5.2. Special hazards arising from the substance or mixture
The product itself does not burn.

Hazardous combustion products:
In case of fire: Gases/vapours, toxic
Nitrogen oxides (NOx)

5.3. Advice for firefighters
In case of fire: Wear self-contained breathing apparatus.

5.4. Additional information
Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
6.1.1. For non-emergency personnel
Personal precautions:
Remove persons to safety.

Protective equipment:
Wear protective gloves/protective clothing/eye protection/face protection.

6.1.2. For emergency responders
Personal protection equipment:
Personal protection equipment: see section 8

6.2. Environmental precautions
Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up
For containment:
Cover drains.
Prevent spread over a wide area (e.g. by containment or oil barriers).

For cleaning up:
Dilute with plenty of water.
Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).
Take up mechanically, placing in appropriate containers for disposal.

Other information:
Treat the recovered material as prescribed in the section on waste disposal.

6.4. Reference to other sections
Safe handling: see section 7 Personal protection equipment: see section 8 Disposal: see section 13

6.5. Additional information
Use appropriate container to avoid environmental contamination.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Protective measures

Advices on safe handling:
Wear personal protection equipment (refer to section 8).

Advices on general occupational hygiene
When using do not eat, drink or smoke. Avoid contact with eyes and skin.

*
7.2. Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions:
Keep container tightly closed in a cool, well-ventilated place.

Packaging materials:
Keep/Store only in original container.
Unsuitable container/equipment material:
PE (polyethylene)

Requirements for storage rooms and vessels:
Protect against: Cold
Provide for retaining containers, e.g. floor pan without outflow.

Storage class (TRGS 510, Germany): 12 – non-combustible liquids that cannot be assigned to any of the above storage classes

Further information on storage conditions:
Recommended storage temperature: 15°C - 25°C

7.3. Specific end use(s)
No data available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. Occupational exposure limit values
No data available

8.1.2. Biological limit values
No data available

8.1.3. DNEL-/PNEC-values

Substance name	DNEL value	① DNEL type ② Exposure route ③ Exposure time
methyl-1H-benzotriazole CAS No.: 29385-43-1 EC No.: 249-596-6	0.5 mg/kg	① DNEL worker ② Long-term - dermal, systemic effects ③ 24 h
methyl-1H-benzotriazole CAS No.: 29385-43-1 EC No.: 249-596-6	4.4 mg/kg	① DNEL worker ② Acute – dermal, systemic effects ③ 24 h
methyl-1H-benzotriazole CAS No.: 29385-43-1 EC No.: 249-596-6	0.25 mg/kg	① DNEL worker ② Long-term - dermal, local effects ③ 24 h

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Substance name	DNEL value	① DNEL type ② Exposure route ③ Exposure time
methyl-1H-benzotriazole CAS No.: 29385-43-1 EC No.: 249-596-6	8.8 mg/kg	① DNEL worker ② Acute - dermal, local effects ③ 24 h

Substance name	PNEC Value	① PNEC type
methyl-1H-benzotriazole CAS No.: 29385-43-1 EC No.: 249-596-6	0.008 mg/l	① PNEC aquatic, freshwater
methyl-1H-benzotriazole CAS No.: 29385-43-1 EC No.: 249-596-6	0.008 mg/l	① PNEC aquatic, marine water
methyl-1H-benzotriazole CAS No.: 29385-43-1 EC No.: 249-596-6	0.0025 mg/l	① PNEC sediment, freshwater
methyl-1H-benzotriazole CAS No.: 29385-43-1 EC No.: 249-596-6	0.0025 mg/l	① PNEC sediment, marine water
methyl-1H-benzotriazole CAS No.: 29385-43-1 EC No.: 249-596-6	0.086 mg/l	① PNEC aquatic, intermittent release

*
8.2. Exposure controls

8.2.1. Appropriate engineering controls
No data available

8.2.2. Personal protection equipment

Eye/face protection:
Eye glasses with side protection EN 166

Skin protection:
Tested protective gloves must be worn EN ISO 374

Wearing time with permanent contact
Permeation time (maximum wear duration): >= 480 min

Suitable material: - Thickness of the glove material
CR (polychloroprene, chloroprene rubber) - 0,5 mm
NBR (Nitrile rubber) - 0,35 mm
Butyl caoutchouc (butyl rubber) - 0,5 mm
FKM (fluoro rubber) - 0,4 mm
PVC (polyvinyl chloride) - 0,5 mm
NR (natural rubber, natural latex) - 0,5 mm

Unsuitable material:
Natural fibres (e.g. cotton)
Leather

In the case of wanting to use the gloves again, clean them before taking off and air them well.

Recommendation:
Body protection: Protective clothing. / Apron
Breakthrough times and swelling properties of the material must be taken into consideration.

Respiratory protection:
Usually no personal respirative protection necessary.

Other protection measures:
Wash contaminated clothing before reuse.

8.2.3. Environmental exposure controls
No data available

8.3. Additional information
MAK (CH) 2 mg/m³ E: inhalable fraction

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance
Physical state: Liquid
Colour: dark brown
Odour: not determined

Safety relevant basis data

parameter		at °C	Method	Remark
pH	10			
Melting point	*not determined*			
Freezing point	*not determined*			
Initial boiling point and boiling range	*not determined*			
Decomposition temperature	*not determined*			
Flash point	*not applicable*			
Evaporation rate	*not determined*			
Auto-ignition temperature	*not applicable*			
Upper/lower flammability or explosive limits	*not applicable*			
Vapour pressure	*not determined*			
Vapour density	*not determined*			
Density	1.06 g/cm³	20 °C		
Relative density	*not determined*			
Bulk density	*not applicable*			
Water solubility	completely miscible			
Partition coefficient: n-octanol/ water	*not determined*			
Dynamic viscosity	*not determined*			
Kinematic viscosity	*not determined*	40 °C		
VOC-value	*not applicable*			

9.2. Other information
No data available

SECTION 10: Stability and reactivity

10.1. Reactivity
The product itself does not burn.

10.2. Chemical stability
The product is chemically stable under recommended conditions of storage, use and temperature.

*
10.3. Possibility of hazardous reactions
Explosion hazard with:
Bromine

Reaction with:
Aluminium /-Powder
Chlorine
Fluorine
sulphuric acid
Hydrogen peroxide

10.4. Conditions to avoid
No data available

10.5. Incompatible materials
No data available

10.6. Hazardous decomposition products
Thermal decomposition can lead to the escape of irritating gases and vapours.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Substance name	Toxicological information
methyl-1H-benzotriazole CAS No.: 29385-43-1 EC No.: 249-596-6	**LD_{50} oral:** ≈720 mg/kg (Rat) OECD 401 **LD_{50} dermal:** >2,000 mg/kg (Rabbit) OECD 402
Hydroxyphosphono-acetic acid CAS No.: 23783-26-8 EC No.: 405-710-8	**LD_{50} dermal:** 2,754 mg/kg (Rat) **LD_{50} oral:** 1,260 mg/kg standard acute method (www.echa.europa.eu)

Acute oral toxicity:
Based on available data, the classification criteria are not met.

Acute dermal toxicity:
Based on available data, the classification criteria are not met.

Acute inhalation toxicity:
Based on available data, the classification criteria are not met.

Skin corrosion/irritation:
Causes skin irritation.

Serious eye damage/irritation:
Causes serious eye irritation.

Respiratory or skin sensitisation:
Contains Hydroxyphosphono-acetic acid. May produce an allergic reaction.

Germ cell mutagenicity:
Based on available data, the classification criteria are not met.

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

Reproductive toxicity:
Based on available data, the classification criteria are not met.

STOT-single exposure:
Based on available data, the classification criteria are not met.

STOT-repeated exposure:
Based on available data, the classification criteria are not met.

Aspiration hazard:
Based on available data, the classification criteria are not met.

Additional information:
No data available

* **11.2. Information on other hazards**

Endocrine disrupting properties:
Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1. Toxicity

Substance name	Toxicological information
methyl-1H-benzotriazole CAS No.: 29385-43-1 EC No.: 249-596-6	**EC_{50}:** 8.58 mg/l 2 d (crustaceans, Daphnia magna (Big water flea)) OECD 202 **LC_{50}:** 180 mg/l 3 d (fish, Danio rerio (zebrafish)) OECD 203 **EC_{50}:** 75 mg/l 3 d (Algae/water plant, Pseudokirchneriella subcapitata) OECD 201
Hydroxyphosphono-acetic acid CAS No.: 23783-26-8 EC No.: 405-710-8	**LC_{50}:** >820 mg/l 4 d (fish, Danio rerio (zebrafish)) no guidelines following (www.echa.europa.eu) **EC_{50}:** 50.1 mg/l 3 d (Algae/water plant, Desmodesmus subspicatus) no guidelines following (www.echa.europa.eu) **NOEC:** 820 mg/l (fish, Danio rerio (zebrafish)) no guidelines following (www.echa.europa.eu) **NOEC:** 55 mg/l 2 d (crustaceans) no guidelines following (www.echa.europa.eu) **LC_{50}:** 360 mg/l 4 d (fish, Oncorhynchus mykiss (Rainbow trout)) **EC_{50}:** 50.1 mg/l 3 d (Algae/water plant)

12.2. Persistence and degradability
No data available

12.3. Bioaccumulative potential
No data available

12.4. Mobility in soil
No data available

12.5. Results of PBT and vPvB assessment

Substance name	Results of PBT and vPvB assessment
methyl-1H-benzotriazole CAS No.: 29385-43-1 EC No.: 249-596-6	This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.
Hydroxyphosphono-acetic acid CAS No.: 23783-26-8 EC No.: 405-710-8	This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

12.6. Endocrine disrupting properties
No data available

12.7. Other adverse effects
AOX: -

SECTION 13: Disposal considerations

13.1. Waste treatment methods

13.1.1. Product/Packaging disposal
Waste codes/waste designations according to EWC/AVV

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Waste code product:

16 05 07 *	discarded inorganic chemicals consisting of or containing hazardous substances
18 02 05 *	Chemicals consisting of or containing hazardous substances

*: Evidence for disposal must be provided.

Waste code packaging:

15 01 10 *	packaging containing residues of or contaminated by dangerous substances

*: Evidence for disposal must be provided.

Waste treatment options

Appropriate disposal / Product:
Consult the appropriate local waste disposal expert about waste disposal.

Appropriate disposal / Package:
Contaminated packages must be completely emptied and can be re-used following proper cleaning.

SECTION 14: Transport information

No dangerous good in sense of these transport regulations.

Land transport (ADR/RID)	Inland waterway craft (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.1. UN number or ID number			
No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.
14.2. UN proper shipping name			
No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.
14.3. Transport hazard class(es)			
not relevant			
14.4. Packing group			
No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.
14.5. Environmental hazards			
not relevant			
14.6. Special precautions for user			
not relevant			

14.7. Maritime transport in bulk according to IMO instruments
not relevant

SECTION 15: Regulatory information

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

15.1.1. EU legislation
No data available

15.1.2. National regulations

[DE] National regulations

Restrictions of occupation
22 JArbSchG.

Annex Chemikalien-Verbotsverordnung (ChemVerbotsV)
Do not sell or give to persons under the age of 18 years.
The product is intended for professional use.

Störfallverordnung
Remark:
This product is not classified according to StörfallVO.

Water hazard class
WGK:
1 - schwach wassergefährdend

Source:
Mischungsregel gemäß VwVwS Anhang 4, Nr. 3

Berufsgenossenschaftliche Vorschriften (DGUV-Vorschriften)
DGUV Regel 112-195
Benutzung von Schutzhandschuhen, Aktualisierte Nachdruckfassung Oktober 2007

Other regulations, restrictions and prohibition regulations
TRGS 400 (Gefährdungsbeurteilung)
TRGS 500 (Protective measures)
TRGS 510 (Storage class)
TRGS 555 (Operational instruction)
TRGS 900 (Occupational exposure limit values)

* 15.2. Chemical Safety Assessment
For the following substances of this mixture a chemical safety assessment has been carried out:
Hydroxyphosphono-acetic acid
methyl-1H-benzotriazole

SECTION 16: Other information

* 16.1. Indication of changes

2.3.	Other hazards
7.2.	Conditions for safe storage, including any incompatibilities
8.2.	Exposure controls
10.3.	Possibility of hazardous reactions
11.2.	Information on other hazards
15.1.	Safety, health and environmental regulations/legislation specific for the substance or mixture
15.2.	Chemical Safety Assessment
16.1.	Indication of changes
16.3.	Key literature references and sources for data

16.2. Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route
ADN: Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure
AVV: Abfallverzeichnis-Verordnung
CSB: Chemical oyxgen demand (COD)
BSB: Biochemical oxygen demand
CAS: Chemical Abstracts Service (division of the American Chemical Society)
CLP: Classification, Labelling and Packaging
DE: Deutschland/Germany
DIN: Deutsche Institut für Normung e. V.
DIN EN: Deutsche Institut für Normung e. V. Europäische Norm
DNEL: derived no-effect level
EAK: Europäische Abfallartenkatalog
EU: Europe
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
IATA: International Air Transport Association
IBC: Intermediate Bulk Container
ICAO: International Civil Aviation Organisation
IMDG: International Maritime Code for Dangerous Goods
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
MAK: Maximale Arbeitsplatz-Konzentration
MARPOL: International Convention for the Prevention of Marine Pollution from Ships
min: Minute
mm: Millimeter
PBT: Persistent, Bioaccumulative and Toxic
PENC: Predicted no effect concentration
REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
VOC: Volatile Organic Compounds (USA, EU)
vPvB: very Persistent and very Bioaccumulative (European Agreement concerning the International Carriage of Dangerous Goods by Road)
WGK: Wassergefährdungsklasse

*
16.3. Key literature references and sources for data

[Section 4: First-Aid Measures Section 8: Exposure Controls/Personal Protection Section 10: Stability and Reactivity Section 15: Regulatory Information (non-mandatory)] Source: GESTIS https://gestis.dguv.de/ Issue date: 01.06.2021

[Section 11: Toxicological Information Section 12: Ecological Information (non-mandatory)] Source: ECHA https://echa.europa.eu/de/ Issue date: 01.06.2021

16.4. Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

Classification according to Regulation (EC) No 1272/2008 [CLP]:

Hazard classes and hazard categories	Hazard statements	Classification pro cedure
Skin corrosion/irritation *(Skin Irrit. 2)*	H315: Causes skin irritation.	Calculation method.
Serious eye damage/eye irritation *(Eye Irrit. 2)*	H319: Causes serious eye irritation.	Calculation method.

16.5. Relevant R-, H- and EUH-phrases (Number and full text)

Hazard statements	
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H373	May cause damage to organs through prolonged or repeated exposure. (...)
H411	Toxic to aquatic life with long lasting effects.

16.6. Training advice
No data available

16.7. Additional information
No data available

* Data changed compared with the previous version