



Safety Data Sheet dated 31/3/2016, version 1

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

1.1. Product identifier

Trade name:

ACTISEL

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

Recommended use:

Fertiliser in powder. Agricultural use.

1.3. Details of the supplier of the safety data sheet

Company:

CIFO - Via Oradour 6/8, 40016 - San Giorgio di Piano (BO)- Italy

Tel. 051-6655511 Email: info@cifo.it

website: www.cifo.it

Competent person responsible for the safety data sheet:


info@cifo.it


1.4. Emergency telephone number

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

EC regulation criteria 1272/2008 (CLP)

 Warning, Eye Irrit. 2, Causes serious eye irritation.

 Aquatic Chronic 2, Toxic to aquatic life with long lasting effects.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

Hazard pictograms:



Warning

Hazard statements:

H319 Causes serious eye irritation.

H411 Toxic to aquatic life with long lasting effects.

Precautionary statements:

P102 Keep out of reach of children.

P264 Wash skin and eyes thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

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

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P332+P313 If skin irritation occurs: Get medical advice/attention.

P337+P313 If eye irritation persists: Get medical advice/attention.

P362+P364 Take off contaminated clothing and wash it before reuse.

P391 Collect spillage.

P501 Dispose of contents in accordance with local regulation.



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Special Provisions:

None

Contents:

manganese sulphate

zinc sulphate (hydrous) (monohydrate);

Special provisions according to Annex XVII of REACH and subsequent amendments:

None

2.3. Other hazards

vPvB Substances: None - PBT Substances: None

Other Hazards:

No other hazards

SECTION 3: Composition/information on ingredients

3.1. Substances

N.A.

3.2. Mixtures

Hazardous components within the meaning of the CLP regulation and related classification:

Qty	Name	Ident. Number	Classification
>= 7% - < 10%	manganese sulphate	Index number: 025-003-00-4 CAS: 10034-96-5 EC: 232-089-9 REACH No.: 01-21194566 24-35	3.3/1 Eye Dam. 1 H318 3.9/2 STOT RE 2 H373 4.1/C2 Aquatic Chronic 2 H411
>= 3% - < 5%	zinc sulphate (hydrous) (monohydrate);	Index number: 030-006-00-9 CAS: 7446-19-7 EC: 231-793-3 REACH No.: 01-21194746 84-27	3.1/4/Oral Acute Tox. 4 H302 3.3/1 Eye Dam. 1 H318 4.1/C1 Aquatic Chronic 1 H410
>= 3% - < 5%	Citric acid	CAS: 77-92-9 EC: 201-069-1 REACH No.: 01-21194570 26-42	3.3/2 Eye Irrit. 2 H319

SECTION 4: First aid measures

4.1. Description of first aid measures

Contact with skin:

Immediately take off all contaminated clothing.

Remove contaminated clothing immediately and dispose off safely.

After contact with skin, wash immediately with soap and plenty of water.

Contact with eyes:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

Protect uninjured eye.

Swallowing:

Do not under any circumstances induce vomiting. OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.

Inhalation:

Remove casualty to fresh air and keep warm and at rest.

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

None



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- 4.3. Indication of any immediate medical attention and special treatment needed
In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).
Treatment:
None

SECTION 5: Firefighting measures

- 5.1. Extinguishing media
Recommended extinguishers:
Water, CO₂, Foam, Chemical powders, according to the materials involved in the fire.
Carbon dioxide (CO₂).
Extinguishing media which must not be used for safety reasons:
None in particular.
- 5.2. Special hazards arising from the substance or mixture
Do not inhale explosion and combustion gases.
Burning produces heavy smoke.
- 5.3. Advice for firefighters
Use suitable breathing apparatus .
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Move undamaged containers from immediate hazard area if it can be done safely.

SECTION 6: Accidental release measures

- 6.1. Personal precautions, protective equipment and emergency procedures
Wear personal protection equipment.
Remove all sources of ignition.
Remove persons to safety.
See protective measures under point 7 and 8.
- 6.2. Environmental precautions
Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.
Retain contaminated washing water and dispose it.
In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.
Suitable material for taking up: absorbing material, organic, sand
- 6.3. Methods and material for containment and cleaning up
Wash with plenty of water.
- 6.4. Reference to other sections
See also section 8 and 13

SECTION 7: Handling and storage

- 7.1. Precautions for safe handling
Avoid contact with skin and eyes, inhalation of vapours and mists.
Don't use empty container before they have been cleaned.
Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.
Contaminated clothing should be changed before entering eating areas.
Do not eat or drink while working.
See also section 8 for recommended protective equipment.
- 7.2. Conditions for safe storage, including any incompatibilities
Keep away from food, drink and feed.
Incompatible materials:
None in particular.
Instructions as regards storage premises:
Adequately ventilated premises.
- 7.3. Specific end use(s)



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None in particular

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

manganese sulphate - CAS: 10034-96-5

TLV TWA - 0.2 mg/m³

DNEL Exposure Limit Values

manganese sulphate - CAS: 10034-96-5

Worker Industry: 0.00414 mg/kg body mass/day - Worker Professional: 0.00414 mg/kg body mass/day - Consumer: 0.0021 mg/kg body mass/day - Exposure: Human Dermal

Worker Industry: 0.2 mg/m³ - Worker Professional: 0.2 mg/m³ - Consumer: 0.043 mg/m³ - Exposure: Human Inhalation

zinc sulphate (hydrous) (monohydrate); - CAS: 7446-19-7

Worker Industry: 8.3 mg/kg - Worker Professional: 8.3 mg/kg - Consumer: 8.3 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects

Worker Industry: 1 mg/m³ - Worker Professional: 1 mg/m³ - Consumer: 1.3 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, systemic effects

Consumer: 0.83 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects

PNEC Exposure Limit Values

manganese sulphate - CAS: 10034-96-5

Target: Fresh Water - Value: 0.0128 mg/l

Target: Marine water - Value: 0.0004 mg/l

Target: Freshwater sediments - Value: 0.0114 mg/kg

Target: Marine water sediments - Value: 0.00114 mg/kg

Target: Soil (agricultural) - Value: 25.1 mg/kg

zinc sulphate (hydrous) (monohydrate); - CAS: 7446-19-7

Target: Marine water sediments - Value: 56.5 mg/kg

Target: Soil (agricultural) - Value: 35.6 mg/kg

Target: Fresh Water - Value: 0.026 mg/l

Target: Marine water - Value: 0.061 mg/l

Target: Freshwater sediments - Value: 117.8 mg/kg

Citric acid - CAS: 77-92-9

Target: Marine water - Value: 440 mg/l

Target: Fresh Water - Value: 440 mg/l

Target: Freshwater sediments - Value: 34.6 mg/l

Target: Marine water sediments - Value: 34.6 mg/l

Target: Soil (agricultural) - Value: 33.1 mg/kg

8.2. Exposure controls

Eye protection:

Use close fitting safety goggles, don't use eye lens.

Protection for skin:

Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

Protection for hands:

Use protective gloves that provides comprehensive protection, e.g. P.V.C., neoprene or rubber.

Respiratory protection:

Not needed for normal use.

Thermal Hazards:

None

Environmental exposure controls:

None

Appropriate engineering controls:

None



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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Method:	Notes:
Appearance and colour:	Powder, white	--	--
Odour:	Odourless	--	--
Odour threshold:	Not Relevant	--	--
pH:	3,3 (Sol. 1%; 20°C)	--	--
Melting point / freezing point:	Not Relevant	--	--
Initial boiling point and boiling range:	Not Relevant	--	--
Flash point:	Not Relevant	--	--
Evaporation rate:	Not Relevant	--	--
Solid/gas flammability:	Not Relevant	--	--
Upper/lower flammability or explosive limits:	Not Relevant	--	--
Vapour pressure:	Not Relevant	--	--
Vapour density:	Not Relevant	--	--
Relative density:	Not Relevant	--	--
Solubility in water:	Soluble	--	--
Solubility in oil:	Not Relevant	--	--
Partition coefficient (n-octanol/water):	Not Relevant	--	--
Auto-ignition temperature:	Not Relevant	--	--
Decomposition temperature:	Not Relevant	--	--
Viscosity:	Not Relevant	--	--
Explosive properties:	Not Relevant	--	--
Oxidizing properties:	Not Relevant	--	--

9.2. Other information

Properties	Value	Method:	Notes:
Miscibility:	Not Relevant	--	--
Fat Solubility:	Not Relevant	--	--
Conductivity:	Not Relevant	--	--
Substance Groups relevant properties	Not Relevant	--	--

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions

10.2. Chemical stability

Stable under normal conditions

10.3. Possibility of hazardous reactions

None

10.4. Conditions to avoid

Stable under normal conditions.

10.5. Incompatible materials

None in particular.



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10.6. Hazardous decomposition products
None.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological information of the mixture:

N.A.

Toxicological information of the main substances found in the mixture:

manganese sulphate - CAS: 10034-96-5

a) acute toxicity:

Test: Acute toxicity LD50 - Route: Oral > 2000 mg/kg

Test: Acute toxicity LC50 - Route: Inhalation > 4.98 mg/kg

b) skin corrosion/irritation:

Test: Skin Irritant Negative

c) serious eye damage/irritation:

Test: Eye Irritant Positive

d) respiratory or skin sensitisation:

Test: Inhalation Sensitization Negative

e) germ cell mutagenicity:

Test: Mutagenicity Negative

zinc sulphate (hydrous) (monohydrate); - CAS: 7446-19-7

a) acute toxicity:

Test: Acute toxicity LD50 - Route: Oral - Species: Rat = 2949 mg/kg

Test: Acute toxicity LD50 - Route: Cutaneous - Species: Rat > 2000 mg/kg

Citric acid - CAS: 77-92-9

a) acute toxicity:

Test: Acute toxicity LD50 - Route: Oral - Species: Rat = 11700 mg/kg

Test: Acute toxicity LD50 - Route: Intraperitoneal - Species: Rat = 725 mg/kg

Test: Acute toxicity LD50 - Route: Oral - Species: Mouse = 5400 mg/kg

Test: Acute toxicity LD50 - Route: Intraperitoneal - Species: Mouse = 940 mg/kg

Test: Acute toxicity LD50 - Route: Intravenous - Species: Mouse = 42 mg/kg

Test: Acute toxicity LD50 - Route: Cutaneous - Species: Rat > 2000 mg/kg

b) skin corrosion/irritation:

Test: Skin Irritant - Species: Rabbit Negative

c) serious eye damage/irritation:

Test: Eye Irritant - Species: Rabbit Positive

e) germ cell mutagenicity:

Test: Mutagenicity Negative

f) carcinogenicity:

Test: Carcinogenicity Negative

If not differently specified, the information required in Regulation (EU)2015/830 listed below must be considered as N.A.:

a) acute toxicity;

b) skin corrosion/irritation;

c) serious eye damage/irritation;

d) respiratory or skin sensitisation;

e) germ cell mutagenicity;

f) carcinogenicity;

g) reproductive toxicity;

h) STOT-single exposure;

i) STOT-repeated exposure;

j) aspiration hazard.

SECTION 12: Ecological information



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12.1. Toxicity

Adopt good working practices, so that the product is not released into the environment.
manganese sulphate - CAS: 10034-96-5

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Daphnia = 7 mg/l - Duration h: 48 h
Endpoint: EC50 - Species: Micro organism = 30 mg/l - Duration h: 48 h
Endpoint: EC50 - Species: Algae = 5 mg/l - Duration h: 48 h
Endpoint: LC50 - Species: Fish = 14.5 mg/l - Duration h: 96 h
Endpoint: NOEC - Species: Fish = 0.6 mg/l - Duration h: 4 m

zinc sulphate (hydrous) (monohydrate); - CAS: 7446-19-7

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish = 1-10 mg/l - Duration h: 48 h
Endpoint: LC50 - Species: Daphnia = 1.1-1.7 mg/l - Duration h: 48 h

Citric acid - CAS: 77-92-9

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish = 440 mg/l - Duration h: 48
Endpoint: LC50 - Species: Daphnia = 1535 mg/l - Duration h: 24
Endpoint: LC50 - Species: Algae = 425 mg/l - Duration h: 168
Endpoint: LC50 > 10000 mg/l - Duration h: 16

12.2. Persistence and degradability

None

N.A.

12.3. Bioaccumulative potential

N.A.

12.4. Mobility in soil

N.A.

12.5. Results of PBT and vPvB assessment

vPvB Substances: None - PBT Substances: None

12.6. Other adverse effects

None

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Recover if possible. In so doing, comply with the local and national regulations currently in force.

SECTION 14: Transport information

14.1. UN number

ADR-UN number: 3077

IMDG-Un number: 3077

14.2. UN proper shipping name

ADR-Shipping Name: Materia inquinante per l'ambiente, solida, N.A.S.

IMDG-Technical name: Environmentally hazardous substance, solid, N.O.S.

14.3. Transport hazard class(es)

ADR-Class: 9

ADR - Hazard identification number: 90

IMDG-Class: 9

14.4. Packing group

ADR-Packing Group: III

IMDG-Packing group: III

14.5. Environmental hazards

Marine pollutant: Marine pollutant

14.6. Special precautions for user

ADR-Tunnel Restriction Code: (E)

IMDG-Technical name: Environmentally hazardous substance, solid, N.O.S.



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IMDG-EMS:

F-A, S-F

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code
No

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
Dir. 98/24/EC (Risks related to chemical agents at work)
Dir. 2000/39/EC (Occupational exposure limit values)
Regulation (EC) n. 1907/2006 (REACH)
Regulation (EC) n. 1272/2008 (CLP)
Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013
Regulation (EU) 2015/830
Regulation (EU) n. 286/2011 (ATP 2 CLP)
Regulation (EU) n. 618/2012 (ATP 3 CLP)
Regulation (EU) n. 487/2013 (ATP 4 CLP)
Regulation (EU) n. 944/2013 (ATP 5 CLP)
Regulation (EU) n. 605/2014 (ATP 6 CLP)

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Restrictions related to the product:

No restriction.

Restrictions related to the substances contained:

No restriction.

Where applicable, refer to the following regulatory provisions :

Directive 2003/105/CE ('Activities linked to risks of serious accidents') and subsequent amendments.

Regulation (EC) nr 648/2004 (detergents).

1999/13/EC (VOC directive)

Provisions related to directive EU 2012/18 (Seveso III):

Seveso III category according to Annex 1, part 1

Product belongs to category: E2

15.2. Chemical safety assessment

No

SECTION 16: Other information

Full text of phrases referred to in Section 3:

H318 Causes serious eye damage.

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

H411 Toxic to aquatic life with long lasting effects.

H302 Harmful if swallowed.

H410 Very toxic to aquatic life with long lasting effects.

H319 Causes serious eye irritation.

This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.



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This MSDS cancels and replaces any preceding release.

ADR:	European Agreement concerning the International Carriage of Dangerous Goods by Road.
CAS:	Chemical Abstracts Service (division of the American Chemical Society).
CLP:	Classification, Labeling, Packaging.
DNEL:	Derived No Effect Level.
EINECS:	European Inventory of Existing Commercial Chemical Substances.
GefStoffVO:	Ordinance on Hazardous Substances, Germany.
GHS:	Globally Harmonized System of Classification and Labeling of Chemicals.
IATA:	International Air Transport Association.
IATA-DGR:	Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
ICAO:	International Civil Aviation Organization.
ICAO-TI:	Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG:	International Maritime Code for Dangerous Goods.
INCI:	International Nomenclature of Cosmetic Ingredients.
KSt:	Explosion coefficient.
LC50:	Lethal concentration, for 50 percent of test population.
LD50:	Lethal dose, for 50 percent of test population.
LTE:	Long-term exposure.
PNEC:	Predicted No Effect Concentration.
RID:	Regulation Concerning the International Transport of Dangerous Goods by Rail.
STE:	Short-term exposure.
STEL:	Short Term Exposure limit.
STOT:	Specific Target Organ Toxicity.
TLV:	Threshold Limiting Value.
TWATLV:	Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).
WGK:	German Water Hazard Class.