Safety Data Sheet dated 15/1/2019, version 1

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

1.1. Product identifier

Mixture identification:
Trade name: Cuprocaffaro 50 WP
Trade code: -

1.2 Relevant identified uses of the substance/mixture and uses advised against

Agricoltural use
Other use not admitted

1.3 Details of the supplier of the safety data sheet

Company:
ISAGRO S.p.A. – Via Caldera, 21 – 20153 – Milan - Italy
Emergency telephone number of the company and/or of an authorised advisory centre:
Tel.: 02 40 901 276
Competent person responsible for the safety data sheet:
msds@isagro.com

1.4 Emergency telephone number

QSE Department (office local hours: 9.00 – 18.00) - Phone n.. ++39 02 40901209

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

In compliance with EC Regulation n. 1272/2008 (CLP):

 Warning, Acute Tox. 4, Harmful if inhaled.

 Warning, Aquatic Acute 1, Very toxic to aquatic life.

 Aquatic Chronic 1, Very toxic to aquatic life with long lasting effects.

Adverse physicochemical, human health and environmental effects:
No other hazards

2.2. Label elements

Symbols:

Warning

Hazard statements:

H332 Harmful if inhaled.
H400 Very toxic to aquatic life.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements:

P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P103 Read label before use.

P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment.
P501 Dispose of contents/container in accordance with applicable regulations.

Special Provisions:

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

Contents:

Copper oxychloride tech (57-58)

2.3. Other hazards

It does not contain vPvB/PBT substances

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 EEC directive 67/548 and CLP regulation and related classification:

Qtà	Nome	Numero d'identif.	Classificazione
>= 80% - < 90%	Copper Oxychloride tech.	CAS: 1332-65-6	3.1/3/Oral Acute Tox. 3 H301 4.1/C1 Aquatic Chronic 1 H410 3.1/4/Inhal Acute Tox. 4 H332 4.1/A1 Aquatic Acute 1 H400 M=10

SECTION 4: First aid measures

4.1 Description of first aid measures

In case of skin contact:

Immediately take off all contaminated clothing.
Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap.
Wash thoroughly the body (shower or bath).
Remove contaminated clothing immediatley and dispose off safely.

In case of eyes contact:

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

In case of Ingestion:

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

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.
If breathing is irregular or stopped, administer artificial respiration.
In case of inhalation, consult a doctor immediately and show him packing or label.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms: denaturation of proteins with lesion at the level of the mucous membranes, renal and hepatic damage, CNS damage, emolysis. Vomit with emission of green material,

gastro-oesophagal pyrosis, haematic diarrhea, abdominal colitis, haemolytic jaundice, hepatic and renal insufficiency, convulsions, collapse.
Fever caused by metal inhalation. Skin and eye irritation.

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-
Therapy:
gastric lavage with a-lactalbumin solution, in case of high cupraemia use ligand compounds, penicillamine if the oral route is viable or intravenous CaEDTA and intramuscular BAL; for the rest symptomatic treatment.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:
Water.
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 which, at high temperatures, may contain toxic substances such as HCl.
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.
Wear breathing apparatus if exposed to vapours/dusts/aerosols.
Provide adequate ventilation.
Use appropriate respiratory protection.
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.
Use localized ventilation system.
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.
Contamined 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)

None in particular

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

rame ossicloruro tecnico (57-58) - CAS: 1332-40-7

TLV TWA - 1 mg/m3 (as Cu)

8.2. Exposure controls

Eye protection:

Not needed for normal use. Anyway, operate according good working practices.

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:

Use adequate protective respiratory equipment.

Thermal Hazards:

None

Environmental exposure controls:

None

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance and colour:	Green powder
Odour:	Odourless
Odour threshold:	Not relevant
pH:	7.12 (suspension in water 1%)
Melting point / freezing point:	Not applicable
Initial boiling point and boiling range:	Not applicable
Solid/gas flammability:	Not flammable (based on ingredients)
Upper/lower flammability or explosive limits:	Not relevant
Vapour density:	Not applicable
Flash point:	Not relevant
Evaporation rate:	Not applicable
Vapour pressure:	Not applicable
Relative density:	0.92 g/ml (tap density)
Solubility in water:	Insoluble
Lipid solubility:	Insoluble
Partition coefficient	

(n-octanol/water):	Not applicable due to salt insolubility
Auto-ignition temperature:	Not relevant
Decomposition temperature:	Not known
Viscosity:	Not applicable
Explosive properties:	Not explosive
Oxidizing properties:	Not oxidizing (based on ingredients)

9.2 Other information

Miscibility:	Not available
Fat Solubility:	Not available
Conductivity:	Not available
Substance Groups relevant properties	Not available

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.
10.6. Hazardous decomposition products
None.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Data referred to the *mixture*:

Acute toxicity:
LD50 (oral) (OECD 401):
> 2364 mg/kg (rat)

LD50 (dermal) (OECD 402; OPPTS 870.1200):
> 2000 mg/kg (rat)

LC50 (4h) (inhalation) (OECD 403; EPA OPPTS 870.1300 (1998)):
5 mg/L (male, rat)
3.53-4.08 mg/L (female, rat)

Irritation power:
Acute skin irritation (OECD 404; OPPTS 870.2500):
Not irritating (Male New Zealand White rabbit)

Acute eye irritation (OECD 405):
Not irritant (Male New Zealand White rabbit)

Skin sensitisation (OECD 406):
Not sensitizer (Guinea Pig)

Data referred to *copper oxychloride tech. grade*:

Carcinogenic effect (OECD 451):
No carcinogenic potential (test, rat)
No evidence of carcinogenic effects (ingestion) (man)

Mutagenic effect (OECD 474):
No evidence of mutagenic effect

Teratogenicity (EPA-TSCA 793400):
No evidence of teratogenic effect (test, rat)

Reproduction toxicity (OECD 416):
No evidence of reproduction toxicity

STOT-single exposure:
Not applicable

STOT-repeated exposure:
Not applicable

Aspiration hazard:
Not applicable

SECTION 12: Ecological information

12.1 Toxicity

Adopt good working practices, so that the product is not released into the environment.
Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Data referred to the *mixture*:
Fish –
Acute/chronic toxicity (OECD 203):
Rainbow trout (Onchorynchus mykiss),
LC50 (96 h) = 0.78 mg Cu/L
NOEC (96 h) = 0.355 mg Cu/L

Algae-
Acute/chronic toxicity (OECD 201):
EbC50 (72 h) = 0.033 mg Cu/L (total, mean measured)
ErC50 (72 h) = 0.066 mg Cu/L (total, mean measured)
NOEC (72 h) = 0.018 mg Cu/L (nominal)

Data referred to *copper oxychloride tech. grade*:
Invertebrates –
Acute/chronic toxicity (OECD 202):
EC50 (48 h) = 0.29 mg Cu/L (nominal)
EC50 (48 h) = 0.5 mg COC/L (nominal, C.I. 0.4-0.6)
NOEC (48 h) = 0.1 mg COC/L (nominal)

12.2 Persistence and degradability

Data referred to *copper oxychloride tech. grade*:
Stable to hydrolysis and not expected to be dagradated by photolisis in water.
Not readily biodegradable.

BOD: not applicable
COD: not available

12.3 Bioaccumulative potential
Data referred to *copper oxychloride tech. grade*:
Not applicable due to salt insolubility

12.4 Mobility in soil
Data referred to *copper oxychloride tech. grade*:
Not available. Copper is considered weakly mobile in soil

12.5 Results of PBT and vPvB assessment
Not requested. No PBT and/or vPvB substance is contained in the preparation

12.6 Other adverse effects
None

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. 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:	3077
IMDG-Technical name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (copper oxychloride)

14.3. Transport hazard class(es)

ADR-Class:	9
ADR-Label:	9
ADR - Hazard identification number:	90
IMDG-Class:	9
IMDG-Label:	9 + Marine Pollutant

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

Limited Quantity:	5 kg
IMDG-EMS:	F-A, S-F
Tunnel restriction code:	(E)

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
Environmental Pollutant:
Not available

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)
Regulation (UE) n. 1221/2015 (ATP 7 CLP)
Regulation (UE) n. 918/2016 (ATP 8 CLP)
Regulation (UE) n. 1179/2016 (ATP 9 CLP)

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

Where applicable, refer to the following regulatory provisions :
Directive 82/501/EEC ('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):
To be evaluated with reference to stock quantity

15.2. Chemical safety assessment
Not requested

SECTION 16: Other information

H-statements in section 3:
H301 Toxic if swallowed.
H332 Harmful if inhaled.
H400 Very toxic to aquatic life.
H411 Toxic to aquatic life with long lasting effects.

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
CCNL - Appendix 1
Insert further consulted bibliography
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.
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.
PNEC:	Predicted No Effect Concentration.
RID:	Regulation Concerning the International Transport of Dangerous Goods by Rail.
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.