SAFETY DATA SHEET

1. Identification of the substance and of the company

1.1. Product identifier

Commercial name	CoRouge®
Chemical name	Copper(I) oxide
Synonyms	Dicopper oxide, Cuprous Oxide
CAS no.	1317-39-1
EC no.	215-270-7
Chemical Formula	Cu_2O

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

Use of the substance	Animal nutrition (EU feed additive 3b412)

1.3. Details of the supplier of the safety sheet

Company	Animine 10 rue Léon Rey Grange, 74960 Annecy, France Tel +33 450 221855 E-mail : info@animine.eu

1.4. Emergency telephone number

Emergency telephone

COUNTRY	POISON INFORMATION SERVICE
Austria	+43 1 406 43 43
Belgium	+32 70 24 52 45
Croatia	+3851 2348 342
Czek Republic	+420 224 919 293, +420 224 915 402
Denmark	+45 8212 1212
Estonia	16662
Finland	0800 147 111 / 09 471 977
France	+ 33 (0)1 45 42 59 59
Germany	030 192 40
Greece	(0030) 2107793777
Hungary	+36-80-201-199
Ireland	353 (1) 809 2166 / +353 (1)809 2566
Italy	https://preparatipericolosi.iss.it/cav.aspx
Latvia	+371 67042473
Lithuania	+370 (85) 2362052
The Netherlands	+31(0)30 274 8888
Norway	22 59 13 00
Portugal	+351 800 250 250
Spain	+34 91 562 04 20
Sweden	"112 – ask for Poisons Information" (begär Giftinformation").

2. Hazards identification

2.1. Classification of the substance

Hazard classification according to Regulation (EC) No 1272/2008 [CLP]

Adverse human health effects:

Acute tox. 4	H302: harmful if swallowed.
Acute tox. 4	H332: harmful if inhaled
Eye dam. 1	H318: causes serious eye damage

Environmental hazards:

Aquatic Acute 1	H400: very toxic to aquatic life.	**M factor** = 100
Aquatic Chronic 1	H410: very toxic to aquatic life with long lasting effects	**M factor** = 10.

2.2. Label elements

Hazard pictograms

GHS09 GHS07 GHS05

Signals words: Danger

Hazard statements:
H302: harmful if swallowed
H332: harmful if inhaled
H318: causes serious eye damage
H410: very toxic to aquatic life with long lasting effects

Precautionary statements

Prevention:
P280: Wear eye protection
P261: Avoid breathing dust
P264: Wash hands thoroughly after handling.
P273: Avoid release to the environment.

Response:
P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310: Immediately call a POISON CENTER or doctor/physician.
P391: Collect spillage.

Disposal considerations:
P501: Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards

Physical/chemical hazards:
Not Flammable.
Not explosive.

3. Composition / Information on ingredients

Substance	Identification	Classification	Contents
Copper(I) oxide	CAS no 1317-39-1 EC no 215-270-7	Acute tox. 4; H302 Acute tox. 4; H332 Eye dam. 1; H318 Aquatic Acute 1; H400 (M = 100) Aquatic Chronic 1; H410 (M = 10)	86 %
Carriers			14%

4. First aid procedures

4.1. Description of first aid measures

Inhalation — Remove victim to fresh air.
If feeling unwell, immediately seek medical attention.

Skin contact — Remove contaminated clothing.
Wash off with plenty of water and soap.

Eye contact — Wash out with plenty of water with the eyelid held wide open for at least 15 minutes. Seek medical advice.

Ingestion — Immediately rinse mouth with water.
Do not induce vomiting. Give water to drink.
If feeling unwell, immediately seek medical attention.

5. Fire fighting procedure

5.1. Extinguishing media — In case of fire: use an extinguishing agent suitable for the surrounding fire

5.2. Special hazards — Non-flammable product

5.3. Advice for firefighters — Wear self-contained respiratory protection device.
Contain the extinguishing fluids by bunding (the product is hazardous for the environment).

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6. Accidental release measures

6.1. Personnal precautions, protective equipment and emergency procedures

Use dust mask, eye protection and rubber gloves.

Do not breathe dust and avoid contact with eyes.

6.2. Environmental precautions

Do not allow to enter sewerage and other bodies of water.

6.3. Methods and material for containment and cleaning up

The product should be collected for recycling, or be disposed of in a place where copper is tolerated or needed. To be recovered in the most convenient way. Collect spillage.

7. Handling and storage

7.1. Precautions for safe handling

Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Wear personal protective equipment. Do not breathe dust. Avoid dust formation. Collect spillage.

7.2. Conditions for safe storage, including any incompatilities

Keep only in the original container in a cool, well-ventilated place away from Food. Keep container closed when not in use.

8. Exposure controls / Personal protection

8.1. Control parameters

Copper Indicative occupational exposure limit (8 hours): 1 mg/m^3

8.2. Exposure controls

Personal protection equipment symbols

Hand protection	Wear rubber gloves
Eye / face protection	Safety goggles
Skin protection:	Wear work clothes
Respiratory protection	Wear dust mask (type FFP2)

Engineering measures:	Mechanical ventilation is recommended.
Hygienic measures:	When using do not eat, drink or smoke.

9. Physical and Chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Solid
Appearance:	Powder.
Colour:	Red brown.
Odour:	none to slight.
Odour threshold:	Not specifically applicable
pH	Solid in solution
pH solution:	7 - 8.5 1%
Relative evaporation rate (butylacetate=1):	Not specifically applicable
Melting point:	> 332 °C (O'Connor and Mullee, 2003)
Freezing point:	Not specifically applicable
Boiling point :	1800 °C
Flash point :	Not specifically applicable
Auto-ignition temperature :	Not self-igniting
Decomposition temperature :	> 332 °C
Flammability (solid, gas) :	Non flammable.
Vapour pressure :	Not specifically applicable
Relative vapour density at 20 °C :	Not specifically applicable
Bulk density :	1.6 g/ml
Density :	5.87 kg/l @20°C (O'Connor and Mullee, 2003)
Solubility :	Water: 0.000639 g/l pH 6.6 salt, @20 ° C as Cu 0,000539. Organic solvent:< 14 g/100ml Toluene
Log Pow :	Not determined.
Viscosity, kinematic :	Not specifically applicable
Viscosity, dynamic :	No data available
Explosive properties :	Not explosive.
Oxidising properties :	Non flammable.
Explosive limits :	Not determined

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10. Stability and reactivity

10.1. Reactivity	None
10.2. Chemical stability	Stable under normal conditions
10.3. Possibility of hazardous reactions	None
10.4. Conditions to avoid	High humidity
10.5. Incompatible materials	None
10.6. Hazardous decomposition products	None

11. Toxicological information

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

acute toxicity:	Not classified	
	CoRouge®	
	LD 50 oral rat	3165 mg/kg
	LD 50 dermal guinea pig	> 2000 mg/kg
	LC 50 inhalation rat	> 4.84 mg/l/4h (no deaths)
	Copper(I) oxide	
	LD 50 oral rat	1340 mg/kg
	LC 50 inhalation rat	> 5 mg/l/4h
skin corrosion/irritation:	Not classified	
serious eye damage/irritation:	Not classified	
respiratory or skin sensitisation:	Not classified	
germ cell mutagenicity:	Not classified	
carcinogenicity:	Not classified	
reproductive toxicity:	Not classified	
STOT-single exposure:	Not classified	
STOT-repeated exposure:	Not classified	
aspiration hazard:	Not classified	

12. Ecological information

12.1. Toxicity

Very toxic to aquatic life with long lasting effects.

CoRouge®	
EC50 Daphnia 1	9.8 - 41.2 ppb (Cu2+)
Dicopper oxide, copper (I) oxide (1317-39-1)	
LC50 fish 1	> 0.173 mg/l (96 hours - Cyprinodon variegatus)
EC50 Daphnia 1	0.51 mg/l (48 hours - Daphnia magna)
IC50 algae	65 mg/l 72 hours - Scenedesmus subspicatus

12.2. Persistence and degradability

Product has only a limited biodegradability in soil and water.

12.3. Bioaccumulative potential

CoRouge®:

BCF fish 2	2120 l/kg
Log Pow	Not determined.
Bioaccumulative potential	Not potentially bioaccumulable.

12.4. Mobility in soil

Adsorbs into the soil.

12.5. Results of PBT and vPvB assessment

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII
This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Other adverse effects

Do not allow to enter into surface water or drains. Avoid release to the environment.

13. Disposal considerations

13.1. Waste treatment methods

P273: Avoid release to the environment
P391: Collect spillage
P501: Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

14. Transport information

14.1. UN number

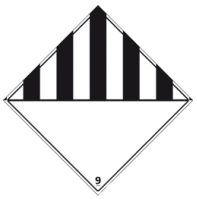
ADR / IMDG / IATA / ADN / RID: 3077

14.2. UN proper shipping name

Proper Shipping Name (ADR)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
Proper Shipping Name (IMDG)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
Proper Shipping Name (IATA)	Environmentally hazardous substance, solid, n.o.s.
Transport document description (ADR)	UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (dicopper oxide, copper (I) oxide), 9, III, (-)
Transport document description (IMDG)	UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (dicopper oxide, copper (I) oxide), 9, III, MARINE POLLUTANT
Transport document description (IATA)	-

14.3. Transport hazard class

ADR / IMDG / IATA / ADN / RID 9
Hazard number 90



14.4. Packing Group

ADR / IMDG / IATA / ADN / RID III

14.5. Environmental hazards

IMDG Marine pulluant Yes

14.6 Special precautions for user

ADR:

Special provisions (ADR):	274, 335, 375, 601
Limited quantities (ADR):	5kg
Excepted quantities (ADR):	E1
Hazard identification number (Kemler No.):	90
Orange plates:	90 / 3077
EAC code:	2Z

IMDG:

Special provisions (IMDG):	274, 335, 966, 967, 969
EmS-No. (Fire):	F-A
EmS-No. (Spillage):	S-F

IATA:

PCA Excepted quantities:	E1
PCA Limited quantities :	Y956
Special provisions:	A97, A158, A179, A197

14.7. Maritime transport in bulk according to IMO instruments
Not applicable

15. Regulatory information

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

In accordance with Regulation 1272/2008, Regulation 1907/2006, Regulation 2015/830, Regulation 2020/878

15.2. Chemical safety assessment

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16. Other information

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