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

1.1. Product identifier

Trade name
Rongalit D p **0050**

Material number: 281182

REACH - Registration number according to article 20(3): 01-2120770256-52-0002

CAS number : 24887-06-7
EC number : 246-515-6

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

Relevant identified uses of the substance or mixture
Industry sector : Textile processing industry
Type of use : Auxiliary for the textile industry

1.3. Details of the supplier of the safety data sheet

Identification of the company
ARCHROMATURKEY Kimya Sanayi
ve Ticaret Ltd. Şti.
Gebze Organize Sanayi Bölgesi İhsan Dede Cad. No:124 Gebze
41480 Kocaeli / TURKEY
Telephone no. : +90 262 672 12 12

Information about the substance/mixture
e-mail: PS.MSDS-Europe@archroma.com

1.4. Emergency telephone number

+49 69 2222 5285, +33 1 7211 0003 (24 h)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according CLP regulation (Regulation (EC) No. 1272/2008, as amended)

Hazard class	Hazard category	H-phrase
Acute toxicity	Category 4	Harmful if swallowed.
Germ cell mutagenicity	Category 2	Suspected of causing genetic defects.
Reproductive toxicity	Category 2	Suspected of damaging fertility or the unborn child.
Acute aquatic toxicity	Category 1	Very toxic to aquatic life.

Chronic aquatic toxicity	Category 1	Very toxic to aquatic life with long lasting effects.

2.2. Label elements

Labelling according CLP regulation (Regulation (EC) No. 1272/2008, as amended)

Hazard pictograms

Signal word

Warning

Hazard statements

H302	Harmful if swallowed.
H341	Suspected of causing genetic defects.
H361	Suspected of damaging fertility or the unborn child.
H410	Very toxic to aquatic life with long lasting effects.
EUH032	Contact with acids liberates very toxic gas.

Precautionary statements

P201	Obtain special instructions before use.
P273	Avoid release to the environment.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P308 + P313	IF exposed or concerned: Get medical advice/ attention.
P391	Collect spillage.
P501	Dispose of contents/ container to an approved waste disposal plant.

2.3. Other hazards

Dust can form an explosive mixture in air.

Contains no components identified as PBT or vPvB with a content >= 0,1 %

Contains no component identified as having Endocrine disrupting properties with a content >= 0,1 %

SECTION 3: Composition/information on ingredients

3.1. Substances

Chemical characterization

Zinc bis(hydroxymethanesulphinate)

CAS number : 24887-06-7
EC number: 246-515-6

Hazardous ingredients

Zinc bis(hydroxymethanesulphinate)
Concentration : >= 95 - <= 100 %
CAS number : 24887-06-7
EC number: 246-515-6

GHS classification EC

Acute toxicity	Category 4	H302
Germ cell mutagenicity	Category 2	H341
Reproductive toxicity	Category 2	H361
Acute aquatic toxicity	Category 1	H400
Chronic aquatic toxicity	Category 1	H410

The text of the H-phrases is shown in section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information
Remove/Take off immediately all contaminated clothing.

After inhalation
Remove person to fresh air. If signs/symptoms continue, get medical attention.

After contact with skin
After contact with skin, wash immediately with plenty of soap and water.
Get medical attention immediately if irritation persists.

After contact with eyes
Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Get medical attention.

After ingestion
If the victim is conscious let him drink plenty of water; immediately call a medical doctor.

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

Symptoms
The possible symptoms known are those derived from the labelling (see section 2).
No symptoms known currently.

Hazards
No additional hazards are known except those derived from the labelling.

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

Treatment

There is no specific antidote available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Dry powder
Foam

Extinguishing media that must not be used for safety reasons

Carbon dioxide (CO2)

5.2. Special hazards arising from the substance or mixture

In case of fires, hazardous combustion gases are formed: Carbon monoxide (CO)
Carbon dioxide (CO2)
Sulphur oxides
zinc oxide

5.3. Advice for firefighters

Special protective equipment for firefighting

Self-contained breathing apparatus

Further information

The degree of risk is governed by the burning substance and the fire conditions.
Dusty conditions may ignite explosively in the presence of an ignition source causing flash fire.
Avoid whirling up the material/product because of the danger of dust explosion.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid dust formation.
Use personal protective equipment.

6.2. Environmental precautions

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
The product should not be allowed to enter drains, water courses or the soil.

6.3. Methods and material for containment and cleaning up

Avoid dust formation.
Contain with dust binding material and dispose of.
Pick up with suitable appliance and dispose of.

6.4. Reference to other sections

Additional information

Avoid dust formation.
Avoid dust formation and electrical charging (sparking) because dust explosion might occur.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Use breathing apparatus when transferring large quantities without exhaust ventilation facilities.

Hygiene measures

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

Dust explosion class : not tested.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers

Keep only in the original container.

Advice on storage compatibility

Keep away from food, drink and animal feeding stuffs.

Further information on storage conditions

Keep tightly closed in a dry, cool and well-ventilated place.

7.3. Specific end use(s)

For the relevant identified use(s) listed in Section 1 the advice mentioned in this section 7 is to be observed.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limit values

Exposure limit values are not available.

DNEL/DMEL values

Zinc bis(hydroxymethanesulphinate)
EC number: 246-515-6
CAS number : 24887-06-7

Route of exposure	Personnel	Exposure time/Effect	Value	Remarks
Inhalation	Workers	Long-term systemic effects	1 mg/m3	Repeated dose toxicity
Inhalation	Workers	Acute systemic effects		No hazard identified
Inhalation	Workers	Long-term local effects		No hazard identified

Inhalation	Workers	Acute local effects		No hazard identified
Dermal	Workers	Long-term systemic effects	8,3 mg/kg	Repeated dose toxicity
Dermal	Workers	Acute systemic effects		No hazard identified
Dermal	Workers	Long-term local effects		No hazard identified
Dermal	Workers	Acute local effects		No hazard identified
Eye contact	Workers	Local effects		No hazard identified
Inhalation	Consumers	Long-term systemic effects	1,25 mg/m3	Repeated dose toxicity
Inhalation	Consumers	Acute systemic effects		No hazard identified
Inhalation	Consumers	Long-term local effects		No hazard identified
Inhalation	Consumers	Acute local effects		No hazard identified
Dermal	Consumers	Long-term systemic effects	8,3 mg/kg	Repeated dose toxicity
Dermal	Consumers	Acute systemic effects		No hazard identified
Dermal	Consumers	Long-term local effects		No hazard identified
Dermal	Consumers	Acute local effects		No hazard identified
Oral	Consumers	Long-term systemic effects	0,83 mg/kg	Repeated dose toxicity
Oral	Consumers	Acute systemic effects		No hazard identified
Eye contact	Consumers	Local effects		No hazard identified

PNEC values

Zinc bis(hydroxymethanesulphinate)
EC number: 246-515-6
CAS number : 24887-06-7

Environmental compartment	**Personnel/Exposure time/Effect**	**Value**
Fresh water		20,6 µg/l
Marine water		6,1 µg/l
Sewage treatment plant		100 µg/l
Fresh water sediment		117,8 mg/kg
Marine sediment		56,5 mg/kg
Soil		35,6 mg/kg
Secondary Poisoning	Does not bioaccumulate.	
Air	No exposure expected	

8.2. Exposure controls

Appropriate engineering controls

It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen deficient environment.
Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment).
Use only appropriately classified electrical equipment and powered industrial trucks.

Respiratory protection :	Short term only Suitable mask with particle filter P3 (European Norm 143)
Hand protection :	Chemical resistant gloves Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.
Eye protection :	Safety glasses with side-shields conforming to EN166
Body protection :	Wear suitable protective clothing.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state :	solid (20 °C)
Form :	powder
Colour :	white
Odour :	Product specific
Odour threshold :	Not applicable
Melting point :	approx. 150 °C
Boiling point :	Not applicable
Flammability :	not auto-flammable Method : estimated
Lower explosion limit :	None
Upper explosive limit :	None
Flash point :	Not applicable
Ignition temperature :	Not applicable
Self-ignition temperature :	not auto-flammable
Thermal decomposition :	> 100 °C The substances mentioned are released when reaching or exceeding the stated temperature.

SADT	Method : No information available.
pH value :	3,5 - 5,2 (20 °C, 100 g/l)
Viscosity (kinematic) :	Not applicable
Viscosity (dynamic) :	not determined
Solubility in water :	500 g/l (20 °C)
Soluble in ... :	Not applicable
Solubility/qualitative :	Not applicable
Octanol/water partition coefficient (log Pow) :	< -3,0 Method : other (calculated)
Vapour pressure :	not tested.
Density :	2,27 g/cm3 (20 °C)
Bulk density :	1.100 - 1.400 kg/m3
Relative Density:	approx. 2,27 (20 °C)
Vapour density relative to air :	No data available
Particle size :	not available

9.2. Other information

Explosive properties :	Explosive according to EU supply regulations : Not explosive Explosive according transport regulation : Not explosive
Self heating	
Oxidizing properties :	Type of oxidizing effect : not oxidizing Method : Expert judgement
Evaporation rate :	Not applicable
Sublimation point :	Not applicable
Minimum ignition energy :	not available
Surface tension :	Not applicable

Further information

If necessary, information on other physical and chemical parameters is indicated in this section.

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reaction known under conditions of normal use.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Potential dust explosion hazard.
Contact with acids liberates toxic gas.

10.4. Conditions to avoid

Air + humidity

10.5. Incompatible materials

Acids
Oxidizing agents
Strong oxidizing agents

10.6. Hazardous decomposition products

Sulphur oxides

SECTION 11: Toxicological information

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

Information related to the product itself:

Acute oral toxicity :	LD50 1.260 mg/kg (Mouse) Method : OECD Test Guideline 401
Acute dermal toxicity :	LD50 > 2.000 mg/kg (Rat) Method : OECD Test Guideline 402
Acute inhalation toxicity :	not available
Irritant effect on skin :	No skin irritation (Rabbit) Method : OECD Test Guideline 404
Irritant effect on eyes :	No eye irritation (Rabbit) Method : OECD Test Guideline 405
Sensitization :	non-sensitizing (Guinea pig) Method : OECD Test Guideline 406
Repeated dose toxicity:	Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test. Route of application: Oral Method : OECD Test Guideline 422
Genetic toxicity in vivo :	Chromosome Aberration Test Mouse (NMRI, male and female) intraperitoneal 24 h 2000, 1000, 500 mg/kg Method : OECD Test Guideline 474 positive
Genetic toxicity in vitro :	Test type : In vitro gene mutation study in mammalian cells Result : positive Method : OECD Test Guideline 476

Test type : Bacterial reverse mutation assay
Metabolic activation : with and without
Result : negative
Method : OECD Test Guideline 471

Developmental toxicity/teratogenicity : Route of application: oral (gavage)
NOAEL: 42,5 mg/kg (Rat)
NOAEL (maternal): 42,5 mg/kg (Rat)
Read-across (Analogy)

Toxicity to reproduction/fertility : NOAEL parent: 1.000 mg/kg (Rat, male and female)
Method : OECD Test Guideline 422

Specific target organ toxicity (STOT) - single exposure : not available

Specific target organ toxicity (STOT) - repeated exposure : not available

Aspiration hazard :
No data available

Information related to the component: Zinc bis(hydroxymethanesulphinate)

Acute oral toxicity : LD50 1.260 mg/kg (Mouse)
Method : OECD Test Guideline 401

Acute dermal toxicity : LD50 > 2.000 mg/kg (Rat)
Method : OECD Test Guideline 402

Irritant effect on skin : No skin irritation (Rat)
Method : OECD Test Guideline 402

Irritant effect on eyes : No eye irritation (Rabbit)
Method : OECD Test Guideline 405

Sensitization : Does not cause skin sensitisation. (Guinea pig)
Method : OECD Test Guideline 406

Repeated dose toxicity: Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test.
Route of application: Oral
NOAEL: 1.000 mg/kg (Rat)
Method : OECD Test Guideline 422

Genetic toxicity in vivo : Chromosome Aberration Test
Mouse (NMRI, male and female)
intraperitoneal
Method : OECD Test Guideline 474
positive

Genetic toxicity in vitro : Test type : Ames test
Metabolic activation : with and without
Result : negative
Method : OECD Test Guideline 471

	Test type : Mammalian cell gene mutation assay Metabolic activation : with and without Result : positive Method : OECD Test Guideline 476
Assessment of mutagenicity :	Positive result(s) from in vivo mammalian somatic cell mutagenicity tests.
Developmental toxicity/teratogenicity :	Route of application: oral (gavage) NOAEL: 42,5 mg/kg (Rat) NOAEL (maternal): 42,5 mg/kg (Rat) Read-across (Analogy)
Toxicity to reproduction/fertility :	NOAEL parent: 1.000 mg/kg (Rat, male and female) Method : OECD Test Guideline 422
Assessment of toxicity to reproduction :	Some evidence of adverse effects on sexual function and fertility, and/or on development, based on animal experiments.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Information related to the product itself:

assessment regarding components with endocrine disrupting properties is ongoing

11.2.2. Other information

Remarks
none

SECTION 12: Ecological information

12.1. Toxicity

Information related to the product itself:

Fish toxicity :	LC50 0,169 mg/l (96 h, Oncorhynchus mykiss (rainbow trout)) The details of the toxic effect relate to the nominal concentration.
Fish toxicity (chronic) :	NOEC 0,44 mg/l (72 d, Oncorhynchus mykiss (rainbow trout))
Daphnia toxicity :	EC50 0,413 mg/l (Ceriodaphnia dubia (water flea))
Daphnia toxicity (chronic) :	NOEC 0,037 - 0,400 mg/l

Algae toxicity : IC50 0,136 mg/l (72 h, Selenastrum capricornutum (fresh water algae))
Method : OECD Test Guideline 201

Bacteria toxicity : NOEC 0,1 mg/l (activated sludge, domestic)
Method : ISO 9509

Information related to the component: Zinc bis(hydroxymethanesulphinate)

Fish toxicity : LC50 780 µg/l (96 h, Pimephales promelas (fathead minnow))
Read-across (Analogy)

Fish toxicity (chronic) : NOEC 26 µg/l (30 d, Jordanella floridae (flagfish))
Analytical monitoring : yes
Read-across (Analogy)

Daphnia toxicity : EC50 1.833 µg/l (48 h, Daphnia magna (Water flea))
Method : OECD Test Guideline 202
Read-across (Analogy)

Daphnia toxicity (chronic) : NOEC 5,6 µg/l (24 d)
Analytical monitoring : yes
Read-across (Analogy)

Algae toxicity : EC50 (Growth rate) 370 mg/l (72 h, Desmodesmus subspicatus (Scenedesmus subspicatus))
Method : OECD Test Guideline 201

Bacteria toxicity : EC50 5,2 mg/l (3 h, activated sludge of a predominantly domestic sewage)
Method : OECD Test Guideline 209
Read-across (Analogy)

Toxicity to soil-dwelling organisms : NOEC 350 mg/kg (21 d, Eisenia fetida (earthworms))
Method : OECD Test Guideline 207
Read-across (Analogy)

Sediment toxicity : Analytical Monitoring : yes
Vehicle : no
Chironomus tentans
Test type : semi-static test
Type of sediment : Natural sediment
Duration : 56 d
NOEC
850 mg/l
Basis of effect : Growth

12.2. Persistence and degradability

Information related to the product itself:

Physico-chemical eliminability : not available

Biodegradability : > 70 % (28 d, Carbon dioxide (CO2))
Readily biodegradable.
Method : OECD Test Guideline 301B

Chemical oxygen demand (COD) : 405 mg/g

Information related to the component: Zinc bis(hydroxymethanesulphinate)

Biodegradability : 77 % (28 d)
Readily biodegradable.
Method : OECD Test Guideline 301B

12.3. Bioaccumulative potential

Information related to the product itself:

Bioaccumulation: Due to the distribution coefficient n-octanol/water, accumulation in organisms is not expected.

Information related to the component: Zinc bis(hydroxymethanesulphinate)

Bioaccumulation: Bioconcentration factor (BCF): 22,30
Read-across (Analogy)

12.4. Mobility in soil

Information related to the product itself:

Transport and distribution between environmental compartments : adsorption (water - soil)
Not expected to adsorb on soil.

Behaviour in environmental compartments
not available

Information related to the component: Zinc bis(hydroxymethanesulphinate)

Transport and distribution between environmental compartments : Adsorption/Soil (Soil)
Koc : 0,032
log Koc : -5,565
Method : OECD Test Guideline 121

12.5. Results of PBT and vPvB assessment

Information related to the product itself:

According to Annex XIII of Regulation (EC) No.1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) : The product does not contain a substance fulfilling the PBT (persistent/bioaccumulative/toxic) criteria or the vPvB (very persistent/very bioaccumulative) criteria.

Information related to the component: Zinc bis(hydroxymethanesulphinate)

The substance is not identified as a PBT or as a vPvB substance.

12.6. Endocrine disrupting properties

Information related to the product itself:
assessment regarding components with endocrine disrupting properties is ongoing

12.7. Other adverse effects

Information related to the product itself:

Additional ecotoxicological remarks
Product must not be released into water without pre-treatment.
Product does not contain any organic bound Halogens which could lead to AOX-values.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product
Product should be taken to a suitable and authorized waste disposal site in accordance with relevant regulations and if necessary after consultation with the waste disposal operator and/or the competent Authorities

Uncleaned packaging
Uncontaminated packaging may be reused
Packaging material which cannot be cleaned is to be disposed of in the same way as the substance.

SECTION 14: Transport information

Section 14.1. to 14.5.

ADR

UN no.	UN 3077
Proper shipping name:	Environmentally hazardous substance, solid, n.o.s.
Hazard inducer(s):	zinc bis(hydroxymethanesulphinate)
Class:	9
Primary risk:	9
Packing group:	III
Hazard no. :	90
Remarks	Shipment permitted

ADN

UN no.	UN 3077
Proper shipping name:	Environmentally hazardous substance, solid, n.o.s.
Hazard inducer(s):	zinc bis(hydroxymethanesulphinate)
Class:	9
Primary risk:	9
Packing group:	III
Remarks	Shipment permitted

RID

UN no.	UN 3077
Proper shipping name:	Environmentally hazardous substance, solid, n.o.s.
Hazard inducer(s):	zinc bis(hydroxymethanesulphinate)
Class:	9
Primary risk:	9
Packing group:	III
Hazard no. :	90
Remarks	Shipment permitted

IATA

UN no.	UN 3077
Proper shipping name:	Environmentally hazardous substance, solid, n.o.s.
Hazard inducer(s):	zinc bis(hydroxymethanesulphinate)
Class:	9
Primary risk:	9
Packing group:	III
Remarks	Shipment permitted

IMDG

UN no.	UN 3077
Proper shipping name:	Environmentally hazardous substance, solid, n.o.s.
Hazard inducer(s):	zinc bis(hydroxymethanesulphinate)
Class:	9
Primary risk:	9
Packing group:	III
Remarks	Shipment permitted
Marine pollutant:	Marine Pollutant
EmS :	F-A S-F

14.6. Special precautions for user

See sections 6 to 8 of this Safety Data Sheet.

14.7. Maritime transport in bulk according to IMO instruments

No transport as bulk according IBC - Code.

SECTION 15: Regulatory information

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

Other regulations

Apart from the data/regulations specified in this chapter, no further information is available concerning safety, health and environmental protection.

15.2. Chemical safety assessment

No Chemical Safety Assessment (CSA) is yet available for the substance, or for the component substances, contained in this product.

SECTION 16: Other information

Observe national and local legal requirements

List of the text of the hazard statements mentioned section 3 (H-phrases) :

H302	Harmful if swallowed.
H341	Suspected of causing genetic defects.
H361	Suspected of damaging fertility or the unborn child.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Legend

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
AOX	Adsorbable organic bound halogens
CAS	Chemical Abstracts Service
DMEL	Derived Minimal Effect Level (genotoxic substances)
DNEL	Derived No Effect Level
EC50	Half maximal effective concentration
GHS	Globally Harmonized System
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Lethal Concentration 50%
LD50	Lethal Dose 50%
MARPOL	International Convention for the Prevention of Pollution From Ships
NOAEC	No Observed Adverse Effect Concentration
NOAEL	No Observed Adverse Effect Level
NOEC	Non Observed Effect Concentration
OEL	Occupational Exposure Limit

PBT	Persistent, Bioaccumulative, Toxic
PEC	Predicted Environmental Concentration
PNEC	Predicted No Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	International Rule for Transport of Dangerous Substances by Railway
SVHC	Substances of Very High Concern
vPvB	very Persistent and very Bioaccumulative