



RT Modified Clay Desiccant – Drying Agent

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH), as retained and amended in UK law
Date of issue: 09/06/2023 Version: 1.0

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

1.1. Product identifier

Product form : Mixture
Product name : RT Modified Clay Desiccant – Drying Agent

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

1.2.1. Relevant identified uses

Main use category : Industrial use
Use of the substance/mixture : Desiccant

1.2.2. Uses advised against

Restrictions on use : Anything other than the above

1.3. Details of the supplier of the safety data sheet

R-Tech Solutions
Unit 1
Pinner Parc
Whitland
SA34 0RA
United Kingdom
Telephone: 01994 240500
E-mail: sales@desiccants.co.uk

1.4. Emergency telephone number

Emergency number : 01994240500
(Monday - Friday, 09:00 - 17:00)
English

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Eye Dam. 1 H318
Full text of hazard classes, H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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

Hazard pictograms (CLP) :



GHS05

Signal word (CLP) : Danger
Contains : Calcium oxide
Hazard statements (CLP) : H318 - Causes serious eye damage.
Precautionary statements (CLP) : P280 - Wear protective clothing, eye protection, face protection, protective gloves.
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.

RT Modified Clay Desiccant – Drying Agent

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH), as retained and amended in UK law

2.3. Other hazards

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

Contains no PBT/vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Calcium chloride	CAS-No.: 10043-52-4 EC No.: 233-140-8 EC index No.: 017-013-00-2 REACH-no: 01-2119494219-28-0048	≥ 25	Eye Irrit. 2, H319
Magnesium oxide	CAS-No.: 1309-48-4 EC No.: 215-171-9	3 - <5	Not classified
Calcium oxide substance with a Community workplace exposure limit	CAS-No.: 1305-78-8 EC No.: 215-138-9	3 - <5	Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335
Diiron trioxide	CAS-No.: 1309-37-1 EC No.: 215-168-2	1 - 3	Not classified
Titanium dioxide	CAS-No.: 1317-80-2	<1	Carc. 2, H351

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Use personal protective equipment as required. If medical advice is needed, have product container or label at hand.
First-aid measures after inhalation	: If symptoms develop obtain medical attention.
First-aid measures after skin contact	: Wash skin with plenty of water. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact	: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTRE or doctor/physician.
First-aid measures after ingestion	: If symptoms develop, obtain medical attention.

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

Symptoms/effects	: No information available.
Symptoms/effects after inhalation	: Dust from this product may cause respiratory irritation.
Symptoms/effects after skin contact	: Repeated and/or prolonged skin contact may cause irritation.
Symptoms/effects after eye contact	: Causes serious eye damage.
Symptoms/effects after ingestion	: Not expected to present a significant hazard under anticipated conditions of normal use.

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

Treat symptomatically.

RT Modified Clay Desiccant – Drying Agent

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH), as retained and amended in UK law

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire.
Unsuitable extinguishing media : Do not use a water jet since it may cause the fire to spread.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Not flammable.
Hazardous decomposition products in case of fire : Thermal decomposition can lead to release of irritating and toxic gases and vapours. Carbon dioxide. Carbon monoxide.

5.3. Advice for firefighters

- Firefighting instructions : Exercise caution when fighting any chemical fire. Use water spray or fog for cooling exposed containers. Avoid fire-fighting water entering the environment. Do not allow run-off from fire fighting to enter drains or water courses.
Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

- Protective equipment : See Section 8. Wear suitable protective clothing, gloves and eye or face protection.
Emergency procedures : Ventilate area. Avoid inhalation of dust from dried product. Do not get in eyes.

6.1.2. For emergency responders

- Protective equipment : See Section 8. Wear suitable protective clothing, gloves and eye or face protection.
Emergency procedures : Ventilate area. Avoid inhalation of dust from dried product. Do not get in eyes.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

- For containment : Clear spills immediately.
Methods for cleaning up : Collect using vacuum cleaner fitted with HEPA filter. Sweep or shovel spills into appropriate container for disposal. Minimise generation of dust. Do not dry sweep dust.

6.4. Reference to other sections

SECTION 8: Exposure controls/personal protection. SECTION 13: Disposal considerations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Provide adequate ventilation. Use personal protective equipment as required. Concerning personal protective equipment to use, see section 8. Do not breathe dust. Avoid contact with skin, eyes and clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not get in eyes.
Hygiene measures : Keep good industrial hygiene. When using do not eat, drink or smoke. Take off contaminated clothing. Keep away from food, drink and animal feeding stuffs. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Keep container tightly closed. Store in a dry place.
Incompatible materials : Strong acids. Strong bases. Alkalis.
Packaging materials : Keep only in the original container in a cool, well-ventilated place away from combustible materials.

RT Modified Clay Desiccant – Drying Agent

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH), as retained and amended in UK law

7.3. Specific end use(s)

Desiccant.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

Diiron trioxide (1309-37-1)	
United Kingdom - Occupational Exposure Limits	
Local name	Iron oxide
WEL TWA (mg/m ³)	5 mg/m ³ fume (as Fe) 4 mg/m ³ Rouge, respirable 10 mg/m ³ Rouge, total inhalable
WEL STEL (mg/m ³)	10 mg/m ³ fume (as Fe)
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE
Calcium oxide (1305-78-8)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Calcium oxide
IOELV TWA (mg/m ³)	1 mg/m ³ Respirable fraction
IOELV STEL (mg/m ³)	4 mg/m ³ Respirable fraction
Regulatory reference	COMMISSION DIRECTIVE (EU) 2017/164 COMMISSION DIRECTIVE (EU) 2017/164
United Kingdom - Occupational Exposure Limits	
Local name	Calcium oxide
WEL TWA (mg/m ³)	2 mg/m ³
WEL STEL (mg/m ³)	4 mg/m ³ Respirable fraction
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE
Magnesium oxide (1309-48-4)	
United Kingdom - Occupational Exposure Limits	
Local name	Magnesium oxide
WEL TWA (mg/m ³)	4 mg/m ³ (as Mg) fume and respirable dust 10 mg/m ³ (as Mg) inhalable dust fume
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

Exposure limit values for the other components

Dust	
United Kingdom - Occupational Exposure Limits	
Local name	Dust
WEL TWA (mg/m ³)	10 mg/m ³ inhalable dust 4 mg/m ³ Respirable dust
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

8.1.2. Recommended monitoring procedures

No additional information available

RT Modified Clay Desiccant – Drying Agent

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH), as retained and amended in UK law

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Provide adequate ventilation, including appropriate local extraction, to ensure that occupational exposure limits are not exceeded. Provide adequate ventilation to minimise dust concentrations. Emergency eye wash stations should be available in the immediate vicinity of any potential exposure. Do not get in eyes.

8.2.2. Personal protection equipment

Personal protective equipment:

Wear suitable protective clothing. Avoid all unnecessary exposure.

8.2.2.1. Eye and face protection

Eye protection:

Chemical goggles or safety glasses. Standard EN 166 - Personal eye-protection.

8.2.2.2. Skin protection

Skin and body protection:

Wear chemically protective gloves, lab coat or apron to prevent prolonged or repeated skin contact

Hand protection:

Wear chemically resistant protective gloves. Standard EN 374 - Protective gloves against chemicals. The exact breakthrough time has to be found out by the manufacturer of the protective gloves and has to be observed. Gloves should be removed and replaced if there are any signs of degradation or breakthrough.

8.2.2.3. Respiratory protection

Respiratory protection:

Not required for normal conditions of use. In case of insufficient ventilation, wear suitable respiratory equipment

8.2.2.4. Thermal hazards

Thermal hazard protection:

Not required for normal conditions of use.

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Round granules particle size 1 to 3mm.
Colour	: Brownish - grey.
Odour	: Odourless.
Odour threshold	: No data available
pH	: 7 – 8 (in suspension at 10% in water)
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: > 1600 °C
Flash point	: No data available
Auto-ignition temperature	: No data available

RT Modified Clay Desiccant – Drying Agent

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH), as retained and amended in UK law

Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20°C	: No data available
Relative density	: No data available
Solubility	: Water: < 20 g/l
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under recommended handling and storage conditions (see section 7).

10.2. Chemical stability

Hygroscopic.

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

None known.

10.5. Incompatible materials

Strong acids. Alkalis. Strong bases.

10.6. Hazardous decomposition products

Thermal decomposition can lead to release of irritating and toxic gases and vapours. Carbon dioxide. Carbon monoxide.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

Calcium chloride (10043-52-4)	
LD50 oral, rat	2301 mg/kg
LD50 dermal, rabbit	> 5000 mg/kg
Diiron trioxide (1309-37-1)	
LD50 oral, rat	> 5000 mg/kg
Calcium oxide (1305-78-8)	
LD50 oral, rat	> 2000 mg/kg bodyweight (OECD 425 method)
LC50 inhalation, rat (mg/l)	> 6.04 mg/l - 4 Hours (OECD 436 method)

RT Modified Clay Desiccant – Drying Agent

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH), as retained and amended in UK law

Skin corrosion/irritation	: Not classified pH: 7 – 8 (in suspension at 10% in water)
Serious eye damage/irritation	: Causes serious eye damage. pH: 7 – 8 (in suspension at 10% in water)
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified

Diiron trioxide (1309-37-1)

IARC group	3 - Not classifiable
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Reproductive toxicity : Not classified

Calcium oxide (1305-78-8)

NOAEL, oral, mouse	≥ 440 mg/kg bw/day ((OECD 414 method))
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STOT-single exposure : Not classified

Calcium oxide (1305-78-8)

STOT-single exposure	May cause respiratory irritation.
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STOT-repeated exposure : Not classified

Aspiration hazard : Not classified

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute) : Not classified

Hazardous to the aquatic environment, long-term (chronic) : Not classified

Calcium chloride (10043-52-4)

EC50 Daphnia	2400 mg/l
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NOEC chronic fish	230 mg/l 25 days (OECD 210 method)
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Diiron trioxide (1309-37-1)

EC50 Daphnia	> 100 mg/l - 48 Hours (Daphnia magna, Mobility), (OECD 202 method)
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12.2. Persistence and degradability

Calcium chloride (10043-52-4)

Persistence and degradability	Readily biodegradable.
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Calcium oxide (1305-78-8)

Persistence and degradability	Not relevant for inorganic substances.
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12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

Diiron trioxide (1309-37-1)

Ecology - soil	Insoluble in water.
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Calcium oxide (1305-78-8)

Ecology - soil	Soluble in water.
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RT Modified Clay Desiccant – Drying Agent

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH), as retained and amended in UK law

12.5. Results of PBT and vPvB assessment

RT Modified Clay Desiccant – Drying Agent

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

Component

Calcium chloride (10043-52-4)

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

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Dispose in a safe manner in accordance with local/national regulations. Empty containers should be taken to an approved waste handling site for recycling or disposal.

Additional information : Handle empty containers with care.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with / ADR / IMDG / IATA / ADN / RID

14.1 UN number

UN-No. (ADR) : Not regulated
UN-No. (IMDG) : Not regulated
UN-No. (IATA) : Not regulated
UN-No. (ADN) : Not regulated
UN-No. (RID) : Not regulated

14.2. UN proper shipping name

Proper Shipping Name : Not regulated
Proper Shipping Name (IMDG) : Not regulated
Proper Shipping Name (IATA) : Not regulated
Proper Shipping Name (ADN) : Not regulated
Proper Shipping Name (RID) : Not regulated

14.3. Transport hazard class(es)

ADR
Transport hazard class(es) (ADR) : Not regulated

IMDG
Transport hazard class(es) (IMDG) : Not regulated

IATA
Transport hazard class(es) (IATA) : Not regulated

ADN
Transport hazard class(es) (ADN) : Not regulated

RID
Transport hazard class(es) (RID) : Not regulated

RT Modified Clay Desiccant – Drying Agent

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH), as retained and amended in UK law

14.4. Packing group

Packing group	: Not regulated
Packing group (IMDG)	: Not regulated
Packing group (IATA)	: Not regulated
Packing group (ADN)	: Not regulated
Packing group (RID)	: Not regulated

14.5. Environmental hazards

Dangerous for the environment	: No
Marine pollutant	: No
Other information	: No supplementary information available

14.6. Special precautions for user

Overland transport

Not regulated

Transport by sea

Not regulated

Air transport

Not regulated

Inland waterway transport

Not regulated

Rail transport

Not regulated

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

RT Modified Clay Desiccant – Drying Agent

Safety Data Sheet

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Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out

SECTION 16: Other information

Abbreviations and acronyms:	
	ADR (Accord européen relatif au transport international des marchandises Dangereuses par Route)
	CAS (Chemical Abstracts Service) number
	CLP (Classification, Labeling and Packaging)
	DNEL (Derived No Effect Level)
	EC (European Community)
	EN (European Norm)
	IATA (International Air Transport Association)
	IBC (Intermediate Bulk Container)
	IMDG (International Maritime Dangerous Goods Code)
	LC50 (Lethal Concentration 50%)
	LD50 (Lethal Dose 50%)
	NOAEL (No Observed Adverse Effect Level)
	NOEC (No Observed Effect Concentration)
	OECD (Organisation for Economic Co-operation and Development)
	OEL (Occupational exposure limit)
	PBT (Persistent, Bioaccumulative and Toxic)
	PNEC (Predicted No Effect Concentration)
	REACH (Registration, Evaluation and Authorisation of CHemicals)
	STEL (Short Term Exposure Limit)
	UNxxxx (Number assigned by the United Nations Committee of Experts on the Transport of Dangerous Goods)
	vPvB (very Persistent and very Bioaccumulative)

Data sources

: REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006. Where 'Regulation (EC) No. 1272/2008' appears in the safety data sheet, this is a reference to Regulation (EC) No. 1272/2008, as retained and amended in UK law. Supplier's safety documents. ECHA (European Chemicals Agency).

Other information

: Classification procedure according to Regulation (EC) No. 1272/2008 [CLP]: Physical hazards: On basis of test data. Health hazards: On basis of test data. Environmental hazards: On basis of test data.

RT Modified Clay Desiccant – Drying Agent

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH), as retained and amended in UK law

Full text of H- and EUH-statements:	
Carc. 2	Carcinogenicity, Category 2
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H351	Suspected of causing cancer.
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.