according to the Globally Harmonized System



# Multi Acid (with Calcium Carbonate) Formulation

Version Revision Date: SDS Number: Date of last issue: 04.02.2025 2.0 14.04.2025 11506990-00002 Date of first issue: 04.02.2025

### 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Multi Acid (with Calcium Carbonate) Formulation

Product code : Latisan

Manufacturer or supplier's details

Company : MSD

Address : Briahnager - Off Pune Nagar Road

Wagholi - Pune - India 412 207

Telephone : +1-908-740-4000

Emergency telephone number : +1-908-423-6000

E-mail address : EHSDATASTEWARD@msd.com

Recommended use of the chemical and restrictions on use

Recommended use : Veterinary product Restrictions on use : Not applicable

## 2. HAZARDS IDENTIFICATION

### Manufacture, Storage and Import of Hazardous Chemicals Rules 1989

### Classification

Not classified as hazardous according to criteria laid down in Part I of Schedule-1.

**GHS Classification** 

Serious eye damage/eye irri-

Category 1

tation

Germ cell mutagenicity : Category 2

**GHS** label elements

Hazard pictograms :

Signal word : Danger

Hazard statements : H318 Causes serious eye damage.

H341 Suspected of causing genetic defects.

according to the Globally Harmonized System



# Multi Acid (with Calcium Carbonate) Formulation

Version Revision Date: SDS Number: Date of last issue: 04.02.2025 2.0 14.04.2025 11506990-00002 Date of first issue: 04.02.2025

Precautionary statements : Prevention:

P203 Obtain, read and follow all safety instructions before use. P264+P265 Wash hands thoroughly after handling. Do not

P280 Wear protective gloves/ protective clothing/ eye protective clothing/

tion/ face protection.

Response:

P305 + P354 + P338 + P317 IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical help. P318 IF exposed or concerned, get medical advice.

Storage:

P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste

disposal plant.

## **Additional Labelling**

The following percentage of the mixture consists of ingredient(s) with unknown hazards to the aquatic environment: 22.5 %

#### Other hazards which do not result in classification

Contact with dust can cause mechanical irritation or drying of the skin.

May form explosive dust-air mixture during processing, handling or other means.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

## Components

Chemical name	CAS-No.	Concentration (% w/w)
Sanguinarine	2447-54-3	>= 20 - < 30
Bentonite	1302-78-9	>= 20 - < 30
Calcium diformate	544-17-2	>= 3 - < 5
Phosphoric acid	7664-38-2	>= 1 - < 3
Formic acid	64-18-6	>= 0.1 - < 1

### 4. FIRST AID MEASURES

General advice : In the case of accident or if you feel unwell, seek medical ad-

vice immediately.

When symptoms persist or in all cases of doubt seek medical

advice.

If inhaled : If inhaled, remove to fresh air.

Get medical attention.

In case of skin contact : In case of contact, immediately flush skin with soap and plenty

of water.

Remove contaminated clothing and shoes.

according to the Globally Harmonized System



# Multi Acid (with Calcium Carbonate) Formulation

Version Revision Date: SDS Number: Date of last issue: 04.02.2025 2.0 14.04.2025 11506990-00002 Date of first issue: 04.02.2025

Get medical attention.

Wash clothing before reuse.

Thoroughly clean shoes before reuse.

In case of eye contact : In case of contact, immediately flush eyes with plenty of water

for at least 15 minutes.

If easy to do, remove contact lens, if worn.

Get medical attention immediately.

If swallowed, DO NOT induce vomiting.

Get medical attention.

Rinse mouth thoroughly with water.

Most important symptoms and effects, both acute and

: Contact with dust can cause mechanical irritation or drying of

the skin.

and effects, both acute and delayed

Causes serious eye damage. Suspected of causing genetic defects.

Protection of first-aiders

First Aid responders should pay attention to self-protection,

and use the recommended personal protective equipment when the potential for exposure exists (see section 8).

Notes to physician : Treat symptomatically and supportively.

#### 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Water spray

Alcohol-resistant foam Carbon dioxide (CO2)

Dry chemical

Unsuitable extinguishing

media

None known.

Specific hazards during fire-

fighting

Avoid generating dust; fine dust dispersed in air in sufficient

concentrations, and in the presence of an ignition source is a

potential dust explosion hazard.

Exposure to combustion products may be a hazard to health.

Hazardous combustion prod: :

ucts

Carbon oxides

Metal oxides

Oxides of phosphorus Nitrogen oxides (NOx)

Specific extinguishing meth-

ods

Use extinguishing measures that are appropriate to local cir-

cumstances and the surrounding environment. Use water spray to cool unopened containers.

Remove undamaged containers from fire area if it is safe to do

SO.

Evacuate area.

Special protective equipment:

for firefighters

In the event of fire, wear self-contained breathing apparatus.

Use personal protective equipment.

### 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protec- : Use personal protective equipment.

according to the Globally Harmonized System



# Multi Acid (with Calcium Carbonate) Formulation

Version Revision Date: SDS Number: Date of last issue: 04.02.2025 2.0 14.04.2025 11506990-00002 Date of first issue: 04.02.2025

tive equipment and emergency procedures

Follow safe handling advice (see section 7) and personal pro-

tective equipment recommendations (see section 8).

Environmental precautions : Avoid release to the environment.

Prevent further leakage or spillage if safe to do so. Retain and dispose of contaminated wash water.

Local authorities should be advised if significant spillages

cannot be contained.

Methods and materials for containment and cleaning up

Sweep up or vacuum up spillage and collect in suitable container for disposal.

Avoid dispersal of dust in the air (i.e., clearing dust surfaces

with compressed air).

Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to deter-

mine which regulations are applicable.

Sections 13 and 15 of this SDS provide information regarding

certain local or national requirements.

### 7. HANDLING AND STORAGE

Technical measures : Static electricity may accumulate and ignite suspended dust

causing an explosion.

Provide adequate precautions, such as electrical grounding

and bonding, or inert atmospheres.

Local/Total ventilation Advice on safe handling Use only with adequate ventilation.

Do not breathe dust. Do not swallow.

Do not get in eyes.

Avoid prolonged or repeated contact with skin.

Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure as-

sessment

Keep container tightly closed.

Minimize dust generation and accumulation. Keep container closed when not in use. Keep away from heat and sources of ignition.

Take precautionary measures against static discharges. Take care to prevent spills, waste and minimize release to the

environment.

Conditions for safe storage : Keep in properly labelled containers.

Store locked up. Keep tightly closed.

Store in accordance with the particular national regulations.

Materials to avoid : Do not store with the following product types:

Strong oxidizing agents

according to the Globally Harmonized System



# Multi Acid (with Calcium Carbonate) Formulation

Version Revision Date: SDS Number: Date of last issue: 04.02.2025 2.0 14.04.2025 11506990-00002 Date of first issue: 04.02.2025

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Components with workplace control parameters

Components	CAS-No.	Value type	Control parame-	Basis
		(Form of	ters / Permissible	
		exposure)	concentration	
Bentonite	1302-78-9	TWA (Total	10 mg/m3	IN OEL
		dust)	(Silica)	
Phosphoric acid	7664-38-2	TWA	1 mg/m3	IN OEL
		STEL	3 mg/m3	IN OEL
		TWA	1 mg/m3	ACGIH
		STEL	3 mg/m3	ACGIH
Formic acid	64-18-6	TWA	5 ppm	IN OEL
			9 mg/m3	
		TWA	5 ppm	ACGIH

**Engineering measures** : All engineering controls should be implemented by facility

design and operated in accordance with GMP principles to

protect products, workers, and the environment.

Containment technologies suitable for controlling compounds are required to control at source and to prevent migration of the compound to uncontrolled areas (e.g., open-face contain-

ment devices).

Minimize open handling.

Personal protective equipment

Respiratory protection : If adequate local exhaust ventilation is not available or expo-

sure assessment demonstrates exposures outside the rec-

ommended guidelines, use respiratory protection.

Filter type

Hand protection

Combined particulates, acidic and inorganic gas/vapour type

Material : Chemical-resistant gloves

Remarks : Consider double gloving.

Eye protection : Wear safety glasses with side shields or goggles.

If the work environment or activity involves dusty conditions,

mists or aerosols, wear the appropriate goggles.

Wear a faceshield or other full face protection if there is a potential for direct contact to the face with dusts, mists, or

aerosols.

Skin and body protection : Work uniform or laboratory coat.

Additional body garments should be used based upon the task being performed (e.g., sleevelets, apron, gauntlets, disposable

suits) to avoid exposed skin surfaces.

Use appropriate degowning techniques to remove potentially

contaminated clothing.

Hygiene measures : If exposure to chemical is likely during typical use, provide eye

flushing systems and safety showers close to the working

place.

When using do not eat, drink or smoke.

according to the Globally Harmonized System



# Multi Acid (with Calcium Carbonate) Formulation

Version Revision Date: 2.0 14.04.2025

SDS Number: 11506990-00002

Date of last issue: 04.02.2025 Date of first issue: 04.02.2025

Wash contaminated clothing before re-use.

The effective operation of a facility should include review of engineering controls, proper personal protective equipment, appropriate degowning and decontamination procedures, industrial hygiene monitoring, medical surveillance and the

use of administrative controls.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : powder

Colour : white

Odour : No data available

Odour Threshold : No data available

pH : No data available

Melting point/freezing point : No data available

Initial boiling point and boiling

range

No data available

Flash point : Not applicable

Evaporation rate : Not applicable

Flammability (solid, gas) : May form explosive dust-air mixture during processing, han-

dling or other means.

Flammability (liquids) : Not applicable

Upper explosion limit / Upper

flammability limit

No data available

Lower explosion limit / Lower

flammability limit

No data available

Vapour pressure : Not applicable

Relative vapour density : Not applicable

Relative density : No data available

Density : No data available

Solubility(ies)

Water solubility : No data available

Partition coefficient: n-

octanol/water

Auto-ignition temperature

: Not applicable

No data available

according to the Globally Harmonized System



# Multi Acid (with Calcium Carbonate) Formulation

Version Revision Date: SDS Number: Date of last issue: 04.02.2025 2.0 14.04.2025 11506990-00002 Date of first issue: 04.02.2025

Decomposition temperature : No data available

Viscosity

Viscosity, kinematic : Not applicable

Explosive properties : Not explosive

Oxidizing properties : The substance or mixture is not classified as oxidizing.

Molecular weight : No data available

Particle characteristics

Particle size : No data available

### 10. STABILITY AND REACTIVITY

Reactivity : Not classified as a reactivity hazard. Chemical stability : Stable under normal conditions.

Possibility of hazardous reac-

tions

May form explosive dust-air mixture during processing, han-

dling or other means.

Can react with strong oxidizing agents.

Conditions to avoid : Heat, flames and sparks.

Avoid dust formation.

Incompatible materials

Hazardous decomposition

products

Oxidizing agents

: No hazardous decomposition products are known.

## 11. TOXICOLOGICAL INFORMATION

Information on likely routes of:

exposure

Inhalation Skin contact

> Ingestion Eye contact

### **Acute toxicity**

Not classified based on available information.

**Product:** 

Acute oral toxicity : Acute toxicity estimate: > 5,000 mg/kg

Method: Calculation method

Acute inhalation toxicity : Acute toxicity estimate: > 40 mg/l

Exposure time: 4 h
Test atmosphere: vapour
Method: Calculation method

according to the Globally Harmonized System



# Multi Acid (with Calcium Carbonate) Formulation

Version Revision Date: SDS Number: Date of last issue: 04.02.2025 2.0 14.04.2025 11506990-00002 Date of first issue: 04.02.2025

**Components:** 

Sanguinarine:

Acute oral toxicity : LD50 (Rat): 1,660 mg/kg

Bentonite:

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg

Method: OECD Test Guideline 425

Acute inhalation toxicity : LC50 (Rat): > 5.27 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Method: OECD Test Guideline 436

Calcium diformate:

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg

Method: OECD Test Guideline 402

Assessment: The substance or mixture has no acute dermal

toxicity

Remarks: Based on data from similar materials

Phosphoric acid:

Acute oral toxicity : LD50 (Rat): 2,000 mg/kg

Method: OECD Test Guideline 423

Acute inhalation toxicity : Assessment: Corrosive to the respiratory tract.

Formic acid:

Acute oral toxicity : Acute toxicity estimate (Humans): 500 mg/kg

Method: Expert judgement

Acute inhalation toxicity : LC50 (Rat): 7.4 mg/l

Exposure time: 4 h

Test atmosphere: vapour

Assessment: Corrosive to the respiratory tract.

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg

Remarks: Based on data from similar materials

Skin corrosion/irritation

Not classified based on available information.

**Components:** 

Bentonite:

Species : Rabbit

Method : OECD Test Guideline 404

according to the Globally Harmonized System



# Multi Acid (with Calcium Carbonate) Formulation

Version Revision Date: SDS Number: Date of last issue: 04.02.2025 2.0 14.04.2025 11506990-00002 Date of first issue: 04.02.2025

Result : No skin irritation

Remarks : Based on data from similar materials

Calcium diformate:

Species : Rabbit

Method : OECD Test Guideline 404

Result : No skin irritation

Phosphoric acid:

Result : Corrosive after 3 minutes to 1 hour of exposure Remarks : Based on national or regional regulation.

Formic acid:

Result : Corrosive after 3 minutes or less of exposure

Remarks : Based on extreme pH

Serious eye damage/eye irritation

Causes serious eye damage.

**Components:** 

Bentonite:

Species : Rabbit

Method : OECD Test Guideline 405

Result : No eye irritation

Calcium diformate:

Species : Rabbit

Method : OECD Test Guideline 405
Result : Irreversible effects on the eye

Phosphoric acid:

Species : Rabbit

Result : Irreversible effects on the eye

Formic acid:

Result : Irreversible effects on the eye Remarks : Based on skin corrosivity.

Respiratory or skin sensitisation

Skin sensitisation

Not classified based on available information.

Respiratory sensitisation

Not classified based on available information.

according to the Globally Harmonized System



# Multi Acid (with Calcium Carbonate) Formulation

Version Revision Date: SDS Number: Date of last issue: 04.02.2025 2.0 14.04.2025 11506990-00002 Date of first issue: 04.02.2025

### **Components:**

Bentonite:

Exposure routes : Skin contact Species : Mouse Result : negative

Calcium diformate:

Test Type : Maximisation Test
Exposure routes : Skin contact
Species : Guinea pig

Method : OECD Test Guideline 406

Result : negative

Remarks : Based on data from similar materials

Formic acid:

Test Type : Buehler Test
Exposure routes : Skin contact
Species : Guinea pig

Method : OECD Test Guideline 406

Result : negative

## Germ cell mutagenicity

Suspected of causing genetic defects.

## **Components:**

Sanguinarine:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)

Result: positive

Test Type: in vitro micronucleus test

Result: negative

Test Type: DNA damage and repair, unscheduled DNA syn-

thesis in mammalian cells (in vitro)

Result: positive

Genotoxicity in vivo : Test Type: Mutagenicity (in vivo mammalian bone-marrow

cytogenetic test, chromosomal analysis)

Species: Mouse

Application Route: Intraperitoneal injection

Result: positive

Remarks: Based on data from similar materials

Germ cell mutagenicity -

Assessment

Positive result(s) from in vivo mammalian somatic cell muta-

genicity tests.

Bentonite:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)

according to the Globally Harmonized System



# Multi Acid (with Calcium Carbonate) Formulation

Version Revision Date: SDS Number: Date of last issue: 04.02.2025 2.0 14.04.2025 11506990-00002 Date of first issue: 04.02.2025

Result: negative

Test Type: In vitro mammalian cell gene mutation test

Result: negative

Test Type: Chromosome aberration test in vitro

Result: negative

Calcium diformate:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)

Method: OECD Test Guideline 471

Result: negative

Genotoxicity in vivo : Test Type: Sex-linked recessive lethal test in Drosophila mel-

anogaster (in vivo)

Application Route: Ingestion

Result: negative

Remarks: Based on data from similar materials

Phosphoric acid:

Genotoxicity in vitro : Test Type: In vitro mammalian cell gene mutation test

Method: OECD Test Guideline 476

Result: negative

Test Type: Bacterial reverse mutation assay (AMES)

Method: OECD Test Guideline 471

Result: negative

Test Type: Chromosome aberration test in vitro

Method: OECD Test Guideline 473

Result: negative

Formic acid:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)

Method: OECD Test Guideline 471

Result: negative

Genotoxicity in vivo : Test Type: Sex-linked recessive lethal test in Drosophila mel-

anogaster (in vivo)

Application Route: Ingestion Method: OECD Test Guideline 477

Result: negative

Carcinogenicity

Not classified based on available information.

**Components:** 

Formic acid:

Species : Rat

according to the Globally Harmonized System



# Multi Acid (with Calcium Carbonate) Formulation

Version Revision Date: SDS Number: Date of last issue: 04.02.2025 2.0 14.04.2025 11506990-00002 Date of first issue: 04.02.2025

Application Route : Ingestion
Exposure time : 104 weeks
Result : negative

Remarks : Based on data from similar materials

## Reproductive toxicity

Not classified based on available information.

### Components:

Bentonite:

Effects on fertility : Species: Rat

Application Route: Ingestion

Result: negative

Remarks: Based on data from similar materials

Calcium diformate:

Effects on fertility : Test Type: Two-generation reproduction toxicity study

Species: Rat

Application Route: Ingestion Method: OECD Test Guideline 416

Result: negative

Remarks: Based on data from similar materials

Effects on foetal develop-

ment

Test Type: Embryo-foetal development

Species: Rabbit

Application Route: Ingestion Method: OECD Test Guideline 414

Result: negative

Remarks: Based on data from similar materials

Phosphoric acid:

Effects on fertility : Test Type: Combined repeated dose toxicity study with the

reproduction/developmental toxicity screening test

Species: Rat

Application Route: Ingestion Method: OECD Test Guideline 422

Result: negative

Effects on foetal develop-

ment

Test Type: Combined repeated dose toxicity study with the

reproduction/developmental toxicity screening test

Species: Rat

Application Route: Ingestion Method: OECD Test Guideline 422

Result: negative

Formic acid:

Effects on fertility : Test Type: Two-generation reproduction toxicity study

Species: Rat

according to the Globally Harmonized System



# Multi Acid (with Calcium Carbonate) Formulation

Version Revision Date: SDS Number: Date of last issue: 04.02.2025 2.0 14.04.2025 11506990-00002 Date of first issue: 04.02.2025

Application Route: Ingestion

Method: OECD Test Guideline 416

Result: negative

Remarks: Based on data from similar materials

Effects on foetal develop-

ment

Test Type: Embryo-foetal development

Species: Rabbit

Application Route: Ingestion Method: OECD Test Guideline 414

Result: negative

Remarks: Based on data from similar materials

## STOT - single exposure

Not classified based on available information.

### STOT - repeated exposure

Not classified based on available information.

## **Components:**

### Sanguinarine:

Assessment : No significant health effects observed in animals at concentra-

tions of 100 mg/kg bw or less.

### Repeated dose toxicity

## **Components:**

## Sanguinarine:

Species : Rat

NOAEL : 7.7 mg/kg

Application Route : Ingestion

Exposure time : 90 Days

Method : OECD Test Guideline 408

Remarks : The test was conducted according to guideline

### Bentonite:

Species: MouseNOAEL: 500 mg/kgApplication Route: IngestionExposure time: 90 Days

## **Calcium diformate:**

Species : Rat

NOAEL : 3,000 mg/kg
Application Route : Ingestion
Exposure time : 13 Weeks

Method : OECD Test Guideline 408

Remarks : Based on data from similar materials

according to the Globally Harmonized System



## Multi Acid (with Calcium Carbonate) Formulation

Version Revision Date: SDS Number: Date of last issue: 04.02.2025 14.04.2025 11506990-00002 Date of first issue: 04.02.2025 2.0

Phosphoric acid:

Species Rat : 250 mg/kg NOAEL : Ingestion Application Route Exposure time : 40 - 52 Days

Method : OECD Test Guideline 422

Formic acid:

Species Rat NOAEL 400 mg/kg Application Route : Ingestion Exposure time : 52 Weeks

Remarks : Based on data from similar materials

**Aspiration toxicity** 

Not classified based on available information.

#### 12. ECOLOGICAL INFORMATION

**Ecotoxicity** 

**Components:** 

Sanguinarine:

**Ecotoxicology Assessment** 

Acute aquatic toxicity : Toxic effects cannot be excluded

Chronic aquatic toxicity Toxic effects cannot be excluded

Bentonite:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 16,000 mg/l

Exposure time: 96 h

aquatic invertebrates

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): > 100 mg/l

Exposure time: 48 h

Toxicity to algae/aquatic

plants

: ErC50: > 100 mg/l

Exposure time: 72 h

**Calcium diformate:** 

Toxicity to fish : LC0 (Danio rerio (zebra fish)): >= 1,000 mg/l

Exposure time: 96 h

aquatic invertebrates

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): > 1,000 mg/l

Exposure time: 48 h

Method: EPA-660/3-75-009

Remarks: Based on data from similar materials

Toxicity to algae/aquatic : ErC50 ( Pseudokirchneriella subcapitata (green algae)): >

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## Multi Acid (with Calcium Carbonate) Formulation

Version Revision Date: SDS Number: Date of last issue: 04.02.2025 14.04.2025 11506990-00002 Date of first issue: 04.02.2025 2.0

1,000 mg/l plants

Exposure time: 72 h

Remarks: Based on data from similar materials

NOEC (Pseudokirchneriella subcapitata (green algae)): 500

mg/l

Exposure time: 72 h

Remarks: Based on data from similar materials

Toxicity to microorganisms NOEC: >= 22.1 mg/l

Exposure time: 28 d

Remarks: Based on data from similar materials

Toxicity to daphnia and other:

aquatic invertebrates (Chron-

NOEC: >= 100 mg/lExposure time: 21 d

ic toxicity)

Species: Daphnia magna (Water flea) Method: OECD Test Guideline 211

Remarks: Based on data from similar materials

Phosphoric acid:

Toxicity to fish LC50 (Oryzias latipes (Japanese medaka)): > 100 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

aquatic invertebrates

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): > 100 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

Toxicity to algae/aquatic

plants

ErC50 (Desmodesmus subspicatus (green algae)): > 100

mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

NOEC (Desmodesmus subspicatus (green algae)): > 100

ma/l

Exposure time: 72 h

Method: OECD Test Guideline 201

Toxicity to microorganisms EC50: > 100 mg/l

Exposure time: 3 h

Method: OECD Test Guideline 209

Remarks: Based on data from similar materials

Formic acid:

LC50 (Danio rerio (zebra fish)): 130 mg/l Toxicity to fish

Exposure time: 96 h

Method: OECD Test Guideline 203

Remarks: Based on data from similar materials

Toxicity to daphnia and other:

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 365 mg/l

Exposure time: 48 h

according to the Globally Harmonized System



## Multi Acid (with Calcium Carbonate) Formulation

Version Revision Date: SDS Number: Date of last issue: 04.02.2025 14.04.2025 11506990-00002 Date of first issue: 04.02.2025 2.0

Method: OECD Test Guideline 202

Remarks: Based on data from similar materials

Toxicity to algae/aquatic ErC50 (Pseudokirchneriella subcapitata (green algae)): 1,240

plants mg/l

> Exposure time: 72 h Method: OECD Test Guideline 201

Remarks: Based on data from similar materials

EC10 (Pseudokirchneriella subcapitata (green algae)): 295

mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

Remarks: Based on data from similar materials

Toxicity to microorganisms : NOEC: 72 mg/l

Exposure time: 13 d

Toxicity to daphnia and other:

aquatic invertebrates (Chron-

NOEC: > 100 mg/l Exposure time: 21 d

ic toxicity)

Species: Daphnia magna (Water flea) Method: OECD Test Guideline 211

### Persistence and degradability

### **Components:**

Calcium diformate:

Biodegradability Result: Readily biodegradable.

> Biodegradation: 86 % Exposure time: 28 d

Method: OECD Test Guideline 306

Remarks: Based on data from similar materials

Formic acid:

Biodegradability Result: Readily biodegradable.

> Biodegradation: 100 % Exposure time: 28 d

Method: OECD Test Guideline 301C

### Bioaccumulative potential

## **Components:**

Sanguinarine:

Partition coefficient: n-: log Pow: < 4

Remarks: Expert judgement octanol/water

Calcium diformate:

Partition coefficient: nlog Pow: -2.3 - -1.9

octanol/water Remarks: Based on data from similar materials

according to the Globally Harmonized System



# Multi Acid (with Calcium Carbonate) Formulation

Version Revision Date: SDS Number: Date of last issue: 04.02.2025 2.0 14.04.2025 11506990-00002 Date of first issue: 04.02.2025

П

Formic acid:

Partition coefficient: n-

octanol/water

: log Pow: -2.1

Mobility in soil

No data available

Other adverse effects

No data available

13. DISPOSAL CONSIDERATIONS

**Disposal methods** 

Waste from residues : Do not dispose of waste into sewer.

Dispose of in accordance with local regulations.

Contaminated packaging : Empty containers should be taken to an approved waste han-

dling site for recycling or disposal.

If not otherwise specified: Dispose of as unused product.

## 14. TRANSPORT INFORMATION

## International Regulations

**UNRTDG** 

Not regulated as a dangerous good

IATA-DGR

Not regulated as a dangerous good

**IMDG-Code** 

Not regulated as a dangerous good

Transport in bulk according to IMO instruments

Not applicable for product as supplied.

Special precautions for user

Not applicable

### 15. REGULATORY INFORMATION

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

The components of this product are reported in the following inventories:

AICS : not determined

DSL : not determined

IECSC : not determined

according to the Globally Harmonized System



# Multi Acid (with Calcium Carbonate) Formulation

Version Revision Date: SDS Number: Date of last issue: 04.02.2025 2.0 14.04.2025 11506990-00002 Date of first issue: 04.02.2025

### **16. OTHER INFORMATION**

Revision Date : 14.04.2025

**Further information** 

Sources of key data used to compile the Safety Data

compile the Safety Data

Sheet

 Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agen-

cy, http://echa.europa.eu/

Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

Date format : dd.mm.yyyy

Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)

IN OEL : India. Permissible levels of certain chemical substances in

work environment.

ACGIH / TWA : 8-hour, time-weighted average ACGIH / STEL : Short-term exposure limit

IN OEL / TWA : Time-Weighted Average Concentration (TWA) (8 hrs.)

IN OEL / STEL : Short-term exposure Limit STEL (15 min)

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR -Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China: IMDG - International Maritime Dangerous Goods: IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recom-

according to the Globally Harmonized System



# Multi Acid (with Calcium Carbonate) Formulation

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mendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.

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