



### Section 1 : IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### 1.1 Product identification:

**Product name** : CALCIUM CHLORIDE  
**Synonyms** : Calcium dichloride dihydrate  
**Formula** :  $\text{CaCl}_2$   
**HSN** : 28272000  
**CAS-No.** : 10043-52-4

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

Identified uses : Laboratory chemicals, Manufacture of substances

#### 1.3 Details of the supplier of the safety data sheet:

- Company** : **Maruti Color & Chemical**  
6, Siddhipark Soc.,  
Opp. Santoshinagar,  
L.H. Road, Surat - 395006  
Dist.: Surat, State : Gujarat  
Email: [info@marutichemex.com](mailto:info@marutichemex.com)  
Web: [www.marutichemex.com](http://www.marutichemex.com)
- E-Mail Address** : [info@marutichemex.com](mailto:info@marutichemex.com)

#### 1.4 Emergency Telephone Number:

- For Emergency contact on : +91 7567626199
- For Whatsapp number : +91 8799552145

### SECTION 2 : HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance or mixture:

**Classification according to Regulation (EC) No 1272/2008**

Eye irritation (Category 2), H319

For the full text of the H-Statements mentioned in this Section, see Section 16

#### 2.2 Label Elements:

**Labeling according Regulation (EC) No 1272/2008**

**Pictogram**



**Signal word**

Warning

**Hazard statement(s)**

H319

Causes serious eye irritation.



#### Precautionary statement(s)

P264	Wash skin thoroughly after handling.
P280	Wear eye protection/ face protection.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313	If eye irritation persists: Get medical advice/ attention.
Supplemental Hazard Statements	none

#### Reduced labelling (≤125 ml)

##### Pictogram



**Signal word** Warning

Hazard statement(s) None

Precautionary statement(s) None

Supplemental Hazard Statements None

#### 2.3 Other Hazards:

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

## SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.1 Substances

Formula	: $\text{CaCl}_2 \cdot 2\text{H}_2\text{O}$
Synonyms	: Calcium dichloride dihydrate
Molecular weight	: 147.01 g/mol
CAS-No.	: 10043-52-4
EC-No.	: 233-140-8

#### 3.2 Mixtures:

COMPONENT	CONCENTRATION	CLASSIFICATION
CALCIUM DICHLORIDE DIHYDRATE		
CAS-No 10043-52-4 EC-No 233-140-8	≤ 100%	Serious eye irritation (Category 2), H319

For the full text of the H-Statements mentioned in this Section, see Section 16.



### SECTION 4 : FIRST AID MEASURES

#### 4.1 Description of first-aid measures

##### General advice

Show this material safety data sheet to the doctor in attendance.

##### If inhaled

After inhalation: fresh air.

##### In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

##### In case of eye contact

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

##### If swallowed

After swallowing: : immediately make victim drink water (two glasses at most). Consult a physician.

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

The most important known symptoms and effects are described in the labeling (see section 2.2) and/or in section 11

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

No data available

### SECTION 5 : FIREFIGHTING MEASURES

#### 5.1 Extinguishing media

##### Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

##### Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

#### 5.2 Special hazards arising from the substance or mixture

Hydrogen chloride gas

Calcium oxide

Not combustible.

Ambient fire may liberate hazardous vapors.

#### 5.3 Advice for firefighters

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

#### 5.4 Further information

Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.



### SECTION 6 : ACCIDENTAL RELEASE MEASURES

#### 6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

#### 6.2 Environmental precautions

Do not let product enter drains.

#### 6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

#### 6.4 Reference to other sections

For disposal see section 13.

### SECTION 7 : HANDLING AND STORAGE

#### 7.1 Precautions for safe handling

For precautions see section 2.2.

#### 7.2 Conditions for safe storage, including any incompatibilities

**Storage conditions**

Tightly closed. Dry.

**Storage class**

Storage class (TRGS 510): 8B: Non-combustible Solids

#### 7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

### SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1 Control parameters

**Ingredients with workplace control parameters**

**Derived No Effect Level (DNEL)**

Application Area	Routes of exposure	Health effect	Value
Workers DNEL, long term	Inhalation	Long effects	5 mg/m <sup>3</sup>
Worker DNEL, acute	Inhalation	Long effects	10 mg/m <sup>3</sup>
Consumers DNEL, long term	Inhalation	Long effects	2.5 mg/m <sup>3</sup>
Consumers DNEL, acute	Inhalation	Long effects	5 mg/m <sup>3</sup>
Remarks	This information is not available.		



### 8.2 Exposure controls

#### Personal protective equipment

##### Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety goggles

##### Skin protection

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: KCL 741 Dermatrill® L

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: KCL 741 Dermatrill® L

##### Body Protection

Protective clothing

##### Respiratory protection

Required when dusts are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Recommended Filter type: Filter type P2

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

##### Control of environmental exposure

Do not let product enter drains.

**SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES****9.1 Information on basic physical and chemical properties:**

a. Physical state	crystalline
b. Colour	white
c. Odour	odourless
d. Melting point/freezing point	Melting point/range: 176 °C
e. Initial boiling point and boiling range	No data available
f. Flammability (solid, gas)	The product is not flammable.
g. Upper/lower flammability or explosive limits	No data available
h. Flash point	Not applicable
i. Autoignition temp.	Not applicable
j. Decomposition temp.	No data available
k. pH	4.5 – 9.2 at 50 g/l at 20 °C
l. Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: No data available
m. Water solubility	745 g/l at 20 °C - (anhydrous)
n. Partition coefficient: n-octanol/water	No data available for inorganic substances
o. Vapour pressure	0.01 hPa at 20 °C
p. Density	1.85 g/cm <sup>3</sup> at 20 °C
Relative density	No data available
q. Relative vapour Density	No data available
r. Particle Characteristics	No data available
s. Explosive properties	No data available
t. Oxidizing properties	none

**9.2 Other information:**

Surface tension	55.1 mN/m at 20 °C
Relative vapor density	3.39 - (Air = 1.0)

**SECTION 10 : STABILITY AND REACTIVITY****10.1 Reactivity**

No data available

**10.2 Chemical stability**

The product is chemically stable under standard ambient conditions (room temperature) .



### 10.3 Possibility of hazardous reactions

Exothermic reaction with:

Boron trifluoride

vinylmethyl ether

Water

Generates dangerous gases or fumes in contact with:

Metals

Zinc

### 10.4 Conditions to avoid

No information available

### 10.5 Incompatible materials

No data available

### 10.6 Hazardous decomposition products

In the event of fire: see section 5

## SECTION 11 : TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

#### Acute toxicity

LD50 Oral - Rat - male - 2.120 mg/kg

Remarks: (anhydrous substance)

Symptoms: Possible damages:, mucosal irritations

LD50 Dermal - Rabbit - male and female - > 5.000 mg/kg

Remarks: (anhydrous substance)

(ECHA)

The value is given in analogy to the following substances: calcium chloride

#### Skin corrosion/irritation

Skin - Rabbit

Result: No skin irritation - 4 h

(OECD Test Guideline 404)

Remarks: (anhydrous substance)

The value is given in analogy to the following substances: calcium chloride

#### Serious eye damage/eye irritation

Eyes – Rabbit

Result: Moderate eye irritation

(OECD Test Guideline 405)

Remarks: (ECHA)

The value is given in analogy to the following substances: calcium chloride

#### Respiratory or skin sensitization

No data available

#### Germ cell mutagenicity

Test Type: Ames test

Test system: Salmonella typhimurium

Metabolic activation: Metabolic activation



Method: OECD Test Guideline 471

Result: negative

Remarks: (anhydrous substance)

Test Type: Ames test

Result: negative

Remarks: (anhydrous substance)

(Lit.)

Test Type: Mutagenicity (mammal cell test): chromosome aberration.

Test system: Chinese hamster fibroblasts

Metabolic activation: without metabolic activation

Method: OECD Test Guideline 473

Result: negative

Remarks: (anhydrous substance)

#### **Carcinogenicity**

No data available

#### **Reproductive toxicity**

No data available

#### **Specific target organ toxicity - single exposure**

No data available

#### **Specific target organ toxicity - repeated exposure**

No data available

#### **Aspiration hazard**

No data available

### 11.2 Additional Information

#### **Endocrine disrupting properties**

##### **Product:**

Assessment

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

RTECS: EV9810000

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Handle in accordance with good industrial hygiene and safety practice.

## **SECTION 12 : ECOLOGICAL INFORMATION**

### 12.1 Toxicity

#### **Mixture**

Toxicity to fish

static test LC50 - Pimephales promelas (fathead minnow) -  
4.630 mg/l - 96 h  
(US-EPA)

Remarks: (anhydrous substance)  
(ECHA)

The value is given in analogy to the following substances:  
calcium chloride







## CALCIUM CHLORIDE

Toxicity to daphnia  
and other aquatic  
invertebrates

static test EC50- Daphnia magna (Water flea)- 2.400 mg/l - 48 h  
(OECD Test Guideline 202)

Remarks: (anhydrous substance)  
(ECHA)

The value is given in analogy to the following substances:  
calcium chloride

(OECD Test Guideline 202)

ErC50 - Pseudokirchneriella subcapitata- >4.000 mg/l - 72 h  
(OECD Test Guideline 201)

Remarks: (anhydrous substance)  
(ECHA)

The value is given in analogy to the following substances:  
calcium chloride

### 12.2 Persistence and degradability

The methods for determining the biological degradability are not applicable to inorganic substances.

### 12.3 Bioaccumulative potential

No data available

### 12.4 Mobility in soil

No data available

### 12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

### 12.6 Endocrine disrupting properties

#### Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

### 12.7 Other adverse effects

Discharge into the environment must be avoided.

## SECTION 13 : Disposal considerations

### 13.1 Waste treatment methods

No data available

## SECTION 14 : Transport information

### 14.1 UN number

ADR/RID : - IMDG : - IATA : -

### 14.2 UN proper shipping name

ADR/RID : Not dangerous goods  
IMDG : Not dangerous goods  
IATA : Not dangerous goods

**CALCIUM CHLORIDE****14.3 Transport hazard class(es)**

ADR/RID : -

IMDG : -

IATA : -

**14.4 Packaging group**

ADR/RID : -

IMDG : -

IATA : -

**14.5 Environmental hazards**

ADR/RID : no

IMDG Marine pollutant : no

IATA : no

**14.6 Special precautions for user**

No data available

**Further information**

Not classified as dangerous in the meaning of transport regulations

## **SECTION 15 : Regulatory information**

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

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

**Authorizations and/or restrictions on use****Other regulations**

Take note of Dir. 94/33/EC on the protection of young people at work.

**15.2 Chemical Safety Assessment**

A Chemical Safety Assessment has been carried out for this substance.

## **SECTION 16 : Other information**

**Full text of H-Statements referred to under sections 2 and 3.**

H319 Causes serious eye irritation.

**Full text of other abbreviations**

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardization; 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; 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 Organization 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; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; 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, Authorization and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative.

### Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Maruti color & Chemical and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See our Website and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.

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