

# SAFETY DATA SHEET

North American Version

## CASO® TEC FLAKES

### 1. PRODUCT AND COMPANY IDENTIFICATION

#### 1.1. Identification of the substance or preparation

Product name : CASO® TEC FLAKES  
Chemical Name : Calcium chloride dihydrated  
Molecular formula : CaCl<sub>2</sub>.2H<sub>2</sub>O  
Molecular Weight : 147.02 g/mol

#### 1.2. Use of the Substance/Preparation

Recommended use : - Chemical industry  
- Oil & gas industry  
- Anti-dust treatment  
- Deicing agent  
- Industrial and domestic drying  
- Environmental protection  
- Water treatment

#### 1.3. Company/Undertaking Identification

Address : SOLVAY CHEMICALS, INC.  
3333 RICHMOND AVENUE  
USA- 77098-3099 HOUSTON

#### 1.4. Emergency and contact telephone numbers

Emergency telephone : 1 (800) 424-9300 CHEMTREC® (USA & Canada)  
01-800-00-214-00 (MEX. REPUBLIC)

Contact telephone number : US: +1-800-765-8292 (Product information)  
(product information): US: +1-713-525-6500 (Product information)

### 2. HAZARDS IDENTIFICATION

#### 2.1. Emergency Overview:

NFPA : H= 0 F= 0 I= 0 S= None  
HMIS : H= 0 F= 0 R= 0 PPE = Supplied by User; dependent on local conditions

#### General Information

Appearance : hygroscopic, flakes  
Colour : white  
Odour : odourless

#### Main effects

- Irritating to eyes.

#### 2.2. Potential Health Effects:

**Inhalation**

- These may irritate eyes, nose and throat.
- Repeated or prolonged exposure: Nose bleeding.

**Eye contact**

- Severe eye irritation
- Lachrymation
- Redness
- Risk of temporary eye lesions.

**Skin contact**

- When in contact with damp skin, irritation.
- Repeated exposure may cause skin dryness or cracking.
- Chronic exposure may cause dermatitis.

**Ingestion**

- Severe irritation
- Ingestion causes burns of the upper digestive and respiratory tracts.
- Nausea
- Vomiting

**Other toxicity effects**

- See section 11: Toxicological Information

**2.3. Environmental Effects:**

- See section 12: Ecological Information

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Calcium chloride dihydrate**

CAS-No. : 10035-04-8  
Concentration : >= 99.0 %

### 4. FIRST AID MEASURES

**4.1. Inhalation**

- Remove to fresh air.
- If symptoms persist, call a physician.

**4.2. Eye contact**

- Rinse thoroughly with plenty of water, also under the eyelids.
- If eye irritation persists, consult a specialist.

**4.3. Skin contact**

- Remove and wash contaminated clothing before re-use.
- Wash off with soap and water.
- If symptoms persist, call a physician.

**4.4. Ingestion**

- Call a physician immediately.

**If victim is conscious:**

- If swallowed, rinse mouth with water (only if the person is conscious).
- Do NOT induce vomiting.

**If victim is unconscious but breathing:**

- not applicable

## 5. FIRE-FIGHTING MEASURES

### 5.1. Suitable extinguishing media

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

### 5.2. Extinguishing media which shall not be used for safety reasons

- None.

### 5.3. Special exposure hazards in a fire

- Not combustible.

### 5.4. Hazardous decomposition products

- none

### 5.5. Special protective equipment for fire-fighters

- No special precautions required.

## 6. ACCIDENTAL RELEASE MEASURES

### 6.1. Personal precautions

- Refer to protective measures listed in sections 7 and 8.

### 6.2. Environmental precautions

- Should not be released into the environment.
- Do not flush into surface water or sanitary sewer system.

### 6.3. Methods for cleaning up

- Sweep up and shovel into suitable containers for disposal.
- Keep in properly labelled containers.
- Keep in suitable, closed containers for disposal.
- Treat recovered material as described in the section "Disposal considerations".

## 7. HANDLING AND STORAGE

### 7.1. Handling

- Use only in well-ventilated areas.
- Keep away from Incompatible products.

### 7.2. Storage

- Keep in a dry place.
- Store in original container.
- Keep container closed.
- Keep away from Incompatible products.
- In bulk: in silo or in heap (covered and isolated from the ground) on a well-drained surface.

### 7.3. Packaging material

- Polyethylene
- Polypropylene

### 7.4. Other information

- Refer to protective measures listed in sections 7 and 8.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Exposure Limit Values

**Calcium chloride dihydrate**

- SAEL (Solvay Acceptable Exposure Limit) 2003  
TWA = 10 mg/m<sup>3</sup>
- US. ACGIH Threshold Limit Values  
Remarks: none established

## 8.2. Engineering controls

- Ensure adequate ventilation.
- Refer to protective measures listed in sections 7 and 8.
- Apply technical measures to comply with the occupational exposure limits.

## 8.3. Personal protective equipment

### 8.3.1. Respiratory protection

- Use only respiratory protection that conforms to international/ national standards.
- Use NIOSH approved respiratory protection.

### 8.3.2. Hand protection

- Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact).

### 8.3.3. Eye protection

- Chemical resistant goggles must be worn.

### 8.3.4. Skin and body protection

- long sleeved clothing

### 8.3.5. Hygiene measures

- Use only in an area equipped with a safety shower.
- When using do not eat, drink or smoke.
- Handle in accordance with good industrial hygiene and safety practice.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. General Information

Appearance	: hygroscopic, flakes
Colour	: white
Odour	: odourless

### 9.2. Important health safety and environmental information

pH	: from 9 - 10.5 <i>Concentration: 100 g/l</i> <i>Temperature: 20 °C ( 68 °F )</i>
Boiling point/boiling range	: 1,670 °C ( 3,038 °F ) (Calcium chloride) (Anhydrous form)
Flash point	: <i>Remarks: not applicable</i>
Flammability	: <u>Lower explosion limit:</u> <i>Remarks: not applicable</i>
Explosive properties	: <u>Explosion danger:</u> <i>Remarks: Not explosive</i>
Relative density / Density	: 1.85 <i>Temperature: 25 °C ( 77 °F )</i>

<b>Bulk density</b>	:	from 0.8 - 0.9 kg/dm <sup>3</sup>
<b>Solubility</b>	:	Water 745 g/l <i>Remarks: Dissolution with heat release</i> <i>Temperature: 20 °C ( 68 °F )</i>
	:	Alcohol
	:	Acetic acid
	:	Acetone
	:	:
<b>Partition coefficient: n-octanol/water</b>	:	<i>Remarks: not applicable</i>

### 9.3. Other data

<b>Melting point/range</b>	:	= 176 °C ( 349 °F ) <i>Remarks: Decomposition</i>
<b>Granulometry</b>	:	2 % < 500 µm

## 10. STABILITY AND REACTIVITY

### 10.1. Stability

- Stable under recommended storage conditions.

### 10.2. Conditions to avoid

- Exposure to moisture.

### 10.3. Materials to avoid

- none

### 10.4. Hazardous decomposition products

- none

## 11. TOXICOLOGICAL INFORMATION

### Toxicological data

#### **Acute oral toxicity**

- LD50, rat, 4,000 mg/kg

#### **Acute dermal irritation/corrosion**

- LD50, rabbit, > 5,000 mg/kg

#### **Skin irritation**

- rabbit, Mild skin irritation

#### **Eye irritation**

- rabbit, Eye irritation

#### **Genetic toxicity in vitro**

- Genotoxicity in vitro, Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

#### **Teratogenicity**

- Oral route (gavage), 10 days, Various species, 169 mg/kg, Did not show teratogenic effects in animal experiments.

#### **Remarks**

- Irritating to eyes.

## 12. ECOLOGICAL INFORMATION

### 12.1. Ecotoxicity effects

#### *Acute toxicity*

- Fishes, *Lepomis macrochirus*, LC50, 96 h, 9,500 mg/l
- Crustaceans, *Daphnia magna*, EC50, 48 h, 2,400 mg/l
- Crustaceans, *Daphnia magna*, NOEC, 48 h, 2,000 mg/l

#### *Chronic toxicity*

- Crustaceans, *Daphnia magna*, LC50, mortality, 21 Days, 920 mg/l
- Crustaceans, *Daphnia magna*, EC50, Reproduction Test, 21 Days, 610 mg/l
- Algae, *Selenastrum capricornutum*, EC50, biomass, 72 h, 2,900 mg/l
- Algae, *Selenastrum capricornutum*, EC50, growth rate, 72 h, > 4,000 mg/l

### 12.2. Mobility

- Air  
Remarks: mobility as solid aerosols
- Water, Soil/sediments  
Remarks: Solubility
- Water, Soil/sediments  
Remarks: Mobility
- Soil/sediments, (calcium)  
Remarks: adsorption on mineral and organic soil constituents

### 12.3. Persistence and degradability

#### *Abiotic degradation*

- Water, Soil  
Result: instantaneous ionization
- Water, Soil (calcium)  
Result: complexation/precipitation of inorganic and organic materials

#### *Biodegradation*

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

### 12.4. Bioaccumulative potential

- Bioaccumulative potential  
Result: not applicable
- Result: potential chlorides accumulation into soil and plants

### 12.5. Other adverse effects

- no data available

### 12.6. Remarks

- Ecological injuries are not known or expected under normal use.

## 13. DISPOSAL CONSIDERATIONS

### 13.1. Waste from residues / unused products

- Contact waste disposal services.
- In accordance with local and national regulations.

### 13.2. Packaging treatment

- To avoid treatments, as far as possible, use dedicated containers.
- Uncleaned empty packaging

- Clean container with water.
- The empty and clean containers are to be reused in conformity with regulations.
- Must be incinerated in a suitable incineration plant holding a permit delivered by the competent authorities.

## 14. TRANSPORT INFORMATION

- Sea (IMO/IMDG)
- not regulated
- Air (ICAO/IATA)
- not regulated
- U.S. Dept of Transportation
- not regulated
- It is recommended that ERG Guide number 111 be used for all non-regulated material.
- Canadian Transportation of Dangerous Goods
- not regulated

## 15. REGULATORY INFORMATION

### 15.1. Inventory Information

<b>Australian Inventory of Chemical Substances (AICS)</b>	: -	In compliance with inventory.
<b>Canadian Domestic Substances List (DSL)</b>	: -	In compliance with inventory.
<b>Korean Existing Chemicals List (ECL)</b>	: -	One or more components not listed on inventory.
<b>EU list of existing chemical substances (EINECS)</b>	: -	In compliance with inventory.
<b>Japanese Existing and New Chemical Substances (MITI List) (ENCS)</b>	: -	In compliance with inventory.
<b>Inventory of Existing Chemical Substances (China) (IECS)</b>	: -	In compliance with inventory.
<b>Philippine Inventory of Chemicals and Chemical Substances (PICCS)</b>	: -	In compliance with inventory.
<b>Toxic Substance Control Act list (TSCA)</b>	: -	In compliance with inventory.
<b>New Zealand Inventory (in preparation) (NZ)</b>	: -	In compliance with inventory.

### 15.2. Other regulations

**US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A)**

- not regulated.

**SARA Hazard Designation (SARA 311/312)**

- Acute Health Hazard: Yes.

**US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required**

- not regulated.

**US. EPA CERCLA Hazardous Substances (40 CFR 302)**

- not regulated.

**US. New Jersey Worker and Community Right-to-Know Act (New Jersey Statute Annotated Section 34:5A-5)**

- not regulated.

**US. Pennsylvania Worker and Community Right-to-Know Law (34 Pa. Code Chap. 301-323)**

- not regulated.

**US. California Safe Drinking Water & Toxic Enforcement Act (Proposition 65)**

- not regulated.

**OSHA Hazard communication standard**

- Mild eye irritant

**15.3. Classification and labelling**

**Canada. Canadian Environmental Protection Act (CEPA). WHMIS Ingredient Disclosure List (Can. Gaz., Part II, Vol. 122, No. 2)**

- D2B Toxic Material Causing Other Toxic Effects

## 16. OTHER INFORMATION

**Ratings :**

**NFPA (National Fire Protection Association)**

Health = 0 Flammability = 0 Instability = 0 Special =None

**HMIS (Hazardous Material Information System)**

Health = 0 Fire = 0 Reactivity = 0 PPE : Supplied by User; dependent on local conditions

**Further information**

- System maintenance
- Distribute new edition to clients

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