

Material Safety Data Sheet acc. to ISO/DIS 11014

Printing date 07/15/2010

Version: 1

Reviewed on 07/15/2010

1 Identification of the substance/preparation and of the company/undertaking

- **Product details**
- **Trade name:** CVBN (USA)
- **Article number:** T717 (T720 USA)
- **Application of the substance / the preparation** Cut flower pretreatment product
- **Manufacturer/Supplier:**
Chrysal International BV
P.O. Box 5300
1410 AH NAARDEN
Gooimeer 7
1411 DD NAARDEN
The Netherlands
Tel.: +31 (0)35 6955888
Fax: +31 (0)35 6955822
E-mail: info@chrysal.nl
- **Information department:** Department: Regulatory Affairs
- **Emergency information:** Tel.: +31 (0)35 6955851

2 Composition/Data on components

- **Chemical characterization**
- **Description:** Mixture of substances with nonhazardous additions.

· **Dangerous components:**

51580-86-0	sodium dichloroisocyanurate, dihydrate Xn, Xi, N; R 22-31-36/37-50/53 Warning: Environment 4.1.A/1, 4.1.C/1; Exclamation mark 3.1.O/4, 3.3/2A, 3.8/3	50-100%
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- **Additional information:** For the wording of the listed risk phrases refer to section 16.

3 Hazards identification

· **Hazard description:**



Harmful
Dangerous for the environment

· **Information pertaining to particular dangers for man and environment:**

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

Harmful if swallowed.

Contact with acids liberates toxic gas.

Irritating to eyes and respiratory system.

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

· **Classification system:**

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

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· **NFPA ratings (scale 0 - 4)**



Health = 2
Fire = 0
Reactivity = 0

The substance possesses oxidizing properties.

· **HMIS-ratings (scale 0 - 4)**



Health = 2
Fire = 0
Reactivity = 0

· **GHS label elements**



Warning

4.1/1 - Very toxic to aquatic life.

4.1/1 - Very toxic to aquatic life with long lasting effects.



Warning

3.1/4 - Harmful if swallowed.

3.3/2A - Causes serious eye irritation.

3.8/3 - May cause respiratory irritation.

· **Prevention:**

Avoid breathing dust/fume/gas/mist/vapours/spray.

Wear protective gloves/protective clothing/eye protection/face protection.

· **Response:**

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

· **Storage:**

Store locked up.

· **Disposal:**

Dispose of contents/container in accordance with local/regional/national/international regulations.

4 First aid measures

· **General information:**

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

· **After inhalation:** Supply fresh air; consult doctor in case of complaints.

· **After skin contact:**

Generally the product does not irritate the skin.

In case of complaints consult a doctor.

· **After eye contact:**

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

· **After swallowing:**

Seek immediate medical advice.

Rinse out mouth and then drink plenty of water.

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- **Information for doctor:** Probable mucosal damage may contraindicate the use of gastric lavage

5 Fire fighting measures

- **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards caused by the material, its products of combustion or resulting gases:**
Negligible fire hazard
During heating or in case of fire poisonous gases are produced.
- **Protective equipment:** Mount respiratory protective device.

6 Accidental release measures

- **Person-related safety precautions:**
Mount respiratory protective device.
Wear protective equipment. Keep unprotected persons away.
Wear protective clothing.
- **Measures for environmental protection:**
Inform respective authorities in case of seepage into water course or sewage system.
- **Measures for cleaning/collecting:**
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.

7 Handling and storage

- **Handling:**
 - **Information for safe handling:** Prevent formation of dust.
 - **Information about protection against explosions and fires:** Keep respiratory protective device available.
- **Storage:**
 - **Requirements to be met by storerooms and receptacles:** No special requirements.
 - **Information about storage in one common storage facility:** Not required.
 - **Further information about storage conditions:**
Keep receptacle tightly sealed.
Store in cool, dry conditions in well sealed receptacles.

8 Exposure controls and personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Components with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists that were valid during the creation were used as basis.
- **Personal protective equipment:**
- **General protective and hygienic measures:**
The usual precautionary measures for handling chemicals should be followed.
Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
- **Breathing equipment:** Not required.

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- **Protection of hands:** Protective gloves recommended.
- **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
- **Penetration time of glove material**
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Safety glasses

9 Physical and chemical properties

· **General Information**

Form:	Solid
Color:	According to product specification
Odor:	Characteristic

· **Change in condition**

Melting point/Melting range: 250°C (482°F)
Boiling point/Boiling range: Undetermined.

· **Flash point:** Not applicable.

· **Ignition temperature:** 250°C (482°F)

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Density at 20°C (68°F):** .99 g/cm³

· **Bulk density at 20°C (68°F):** 1000 kg/m³

· **Solubility in / Miscibility with**

Water at 25°C (77°F): 250 g/l

· **Solvent content:**

Organic solvents: 0.0 %

Solids content: 100.0 %

10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Materials to be avoided:**
- **Dangerous reactions** Contact with acids releases toxic gases.
- **Dangerous products of decomposition:** No dangerous decomposition products known.

11 Toxicological information

· **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**

51580-86-0 sodium dichloroisocyanurate, dihydrate

Oral	LD50	1400 mg/kg (rat)
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- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** Strong irritant with the danger of severe eye injury.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Harmful
Irritant

12 Ecological information

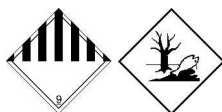
- **Ecotoxicological effects:**
- **Remark:** Very toxic for fish
- **Additional ecological information:**
- **General notes:**
Also poisonous for fish and plankton in water bodies.
Very toxic for aquatic organisms

13 Disposal considerations

- **Product:**
- **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system. Small amounts may be diluted with plenty of water and washed away. Dispose of bigger amounts in accordance with Local Authority requirements.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- **DOT regulations:**



- **Hazard class:** 9
- **Identification number:** UN3077
- **Packing group:** III
- **Proper shipping name (technical name):** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (DICHLOROISOCYANURIC ACID)
- **Label:** 9
- **Remarks:** Special marking with the symbol (fish and tree).

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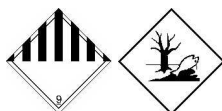
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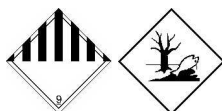
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· Land transport ADR/RID (cross-border):



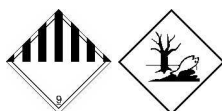
- ADR/RID class: 9 Miscellaneous dangerous substances and articles
- Danger code (Kemler): 90
- UN-Number: 3077
- Packaging group: III
- Special marking: Symbol (fish and tree)
- Description of goods: 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (DICHLOROISOCYANURIC ACID)

· Maritime transport IMDG:



- IMDG Class: 9
- UN Number: 3077
- Label: 9
- Packaging group: III
- EMS Number: F-A,S-F
- Marine pollutant: Yes
- Propper shipping name: Symbol (fish and tree)
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (DICHLOROISOCYANURIC ACID)

· Air transport ICAO-TI and IATA-DGR:



- ICAO/IATA Class: 9
- UN/ID Number: 3077
- Label: 9
- Special marking: Symbol (fish and tree)
- Packaging group: III
- Propper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (DICHLOROISOCYANURIC ACID)
- Remarks: Packing instructions 911 / Max net weight 400 kg.

- UN "Model Regulation": UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., 9, III

15 Regulations

· Sara

· Section 355 (extremely hazardous substances):

None of the ingredient is listed.

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· **Section 313 (Specific toxic chemical listings):**

None of the ingredients is listed.

· **TSCA (Toxic Substances Control Act):**

557-04-0 | magnesium distearate, pure

· **Proposition 65**

· **Chemicals known to cause cancer:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogenicity categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

· **MAK (German Maximum Workplace Concentration)**

None of the ingredients is listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

· **Product related hazard informations:**

The product has been classified and marked in accordance with directives on hazardous materials.

· **Hazard symbols:**



Harmful
Dangerous for the environment

· **Hazard-determining components of labelling:**

sodium dichloroisocyanurate, dihydrate

· **Risk phrases:**

Harmful if swallowed.

Contact with acids liberates toxic gas.

Irritating to eyes and respiratory system.

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

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· Safety phrases:

Keep container dry.

Avoid contact with eyes.

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Wear suitable protective clothing.

In case of fire and/or explosion do not breathe fumes.

Use appropriate container to avoid environmental contamination.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Department issuing MSDS: Department: Regulatory Affairs

USA