

Safety Data Sheet acc. to OSHA HCS

Printing date 09/05/2017

Version: 4

Reviewed on 09/05/2017

1 Identification

- **Product identifier**
- **Trade name:** Chrysal Professional 2 Classic
- **Article number:** C427
- **Application of the substance / the mixture** Cut flower food (professional product)
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Chrysal Colombia S.A:
Cra 106 No. 15-25
Manzana 9, Bodega 21
Bogotá - Colombia

Tel. (571) 4046529
- **Information department:**
Department: Regulatory Affairs of Chrysal International BV, the Netherlands
Chrysal Americas 1-800-247-9725
- **Emergency telephone number:**
ChemTel Inc. 1-800-255-3924 Int. +01-813-248-0585
Tel.: (57) 3165281657

2 Hazard(s) identification

- **Classification of the substance or mixture**
Skin Irrit. 2 H315 Causes skin irritation.
Eye Irrit. 2A H319 Causes serious eye irritation.
Skin Sens. 1 H317 May cause an allergic skin reaction.
- **Label elements**
- **GHS label elements**
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**

GHS07
- **Signal word** Warning
- **Hazard-determining components of labeling:**
mixture of: 5-chloro-2-methyl-2 H -isothiazol-3-one [EC No 247-500-7] and 2-methyl-2 H -isothiazol-3-one [EC No 220-239-6] (3:1)
- **Hazard statements**
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H317 May cause an allergic skin reaction.
- **Precautionary statements**
P280 Wear protective gloves / eye protection.

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- P302+P352 *IF ON SKIN: Wash with plenty of water.*
- P305+P351+P338 *If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.*
- P333+P313 *If skin irritation or rash occurs: Get medical advice/attention.*
- P337+P313 *If eye irritation persists: Get medical advice/attention.*

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



*The substance demonstrates unusual reactivity with water.
The substance possesses oxidizing properties.*

· **HMSI-ratings (scale 0 - 4)**

HEALTH	1	Health = 1
FIRE	0	Fire = 0
REACTIVITY	0	Reactivity = 0

* 3 Composition/information on ingredients

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

· **Dangerous components:**

77-92-9	citric acid <i>Eye Irrit. 2A, H319</i>	$\geq 2.5 < 5\%$
55965-84-9	mixture of: 5-chloro-2-methyl-2 H -isothiazol-3-one [EC No 247-500-7] and 2-methyl-2 H -isothiazol-3-one [EC No 220-239-6] (3:1) <i>Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331; Skin Corr. 1B, H314; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Skin Sens. 1, H317</i>	0.0015- < 0.06%

* 4 First-aid measures

- **Description of first aid measures**
- **After skin contact:**
*If skin irritation continues, consult a doctor.
Immediately wash with water and soap and rinse thoroughly.*
- **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** *Rinse mouth with water and drink one or two glasses of water.*
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed**
Exposure to isothiazolinones may cause allergic skin reaction in susceptible people. Skin reactions usually occur after 24 hours or more after exposure. Sometimes mucosal irritation and respiratory problems can occur

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· *Indication of any immediate medical attention and special treatment needed* Symptomatic treatment

* 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

* 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage
- **Methods and material for containment and cleaning up:**
Dilute with plenty water.
Ensure adequate ventilation.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

* 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **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:** None.
- **Specific end use(s)** No further relevant information available.

* 8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
- **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.

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- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
The usual precautionary measures for handling chemicals should be followed.
Wash hands before breaks and at the end of work.
- **Breathing equipment:** Not required.
- **Protection of hands:**



Protective gloves

- **Material of gloves**
Use chemical resistant gloves classified under standard EN 374 when prolonged or frequently repeated contact with the chemical could occur.
Recommended thickness of the material: ≥ 0.12 mm
Suitable glove material is e. g:
Nitrile rubber, NBR
Neoprene gloves
- **Eye protection:**



Tightly sealed goggles

- **Limitation and supervision of exposure into the environment**
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

· Form:	Fluid
· Color:	Colorless
· Odor:	Odorless
· Odor threshold:	Not determined.

· **pH-value at 20 °C (68 °F):** 2.4

· **Change in condition**

· Melting point/Melting range:	Undetermined.
· Boiling point/Boiling range:	Undetermined.

· **Flash point:** Not applicable.

· **Flammability (solid, gaseous):** Not applicable.

· **Ignition temperature:**

· **Decomposition temperature:** Not determined.

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· Auto igniting:	Product is not selfigniting.
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
· Vapor pressure at 20 °C (68 °F):	23 hPa (17 mm Hg)
· Density at 20 °C (68 °F):	1.121 g/cm ³ (9.355 lbs/gal)
· Relative density	Not determined.
· Vapor density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with Water:	Fully miscible.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	0.0 %
Water:	72.9 %
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **LD/LC50 values that are relevant for classification:**
The product has not been tested. The values listed below are derived from the properties of the individual components:
 - Oral LD50 (rat): > 5000 mg/kg
 - Dermal LD50 (rabbit): > 5000 mg/kg
 - Inhalation LC50 (rat): > 20 mg/l
- **Primary irritant effect:**
- **on the skin:** Irritation is possible.

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- **on the eye:** Irritating effect.
- **Sensitization:** Sensitization possible through skin contact.
- **Additional toxicological information:**

· **Carcinogenic categories**

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

None of the ingredients is listed.

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

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

None of the ingredients is listed.

*** 12 Ecological information**

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
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.
Packaging can be reused or recycled after cleaning.
- **Recommended cleansing agent:** Water, if necessary with cleaning agents.

*** 14 Transport information**

- | | |
|------------------------------------|------|
| · UN-Number | Void |
| · DOT, ADR, ADN, IMDG, IATA | Void |
| · UN proper shipping name | Void |
| · DOT, ADR, ADN, IMDG, IATA | Void |

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· Transport hazard class(es)	
· DOT, ADR, ADN, IMDG, IATA	
· Class	Void
· Packing group	
· DOT, ADR, IMDG, IATA	Void
· Environmental hazards:	
· Marine pollutant:	No
· Special precautions for user	Not applicable.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	Not dangerous according to the above specifications.
· UN "Model Regulation":	Void

15 Regulatory information

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

· **Section 355 (extremely hazardous substances):**

None of the ingredient is listed.

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

None of the ingredients is listed.

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

All ingredients are listed.

· **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.

· **Carcinogeny categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

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

None of the ingredients is listed.

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· **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.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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.

Attention: The following risk phrase relate to the raw materials in the product and not the product itself. The (EU) H-phrases for the mixture, if relevant, can be found in Section 2.

· **Relevant phrases**

- H301 Toxic if swallowed.
- H311 Toxic in contact with skin.
- H314 Causes severe skin burns and eye damage.
- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.
- H331 Toxic if inhaled.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.

· **Department issuing SDS:**

Chrysal International BV, the Netherlands
Department: Product Safety & Regulatory Affairs

· **Date of preparation / last revision** 09/05/2017 / 3

· **Abbreviations and acronyms:**

- ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
- IMDG: International Maritime Code for Dangerous Goods
- DOT: US Department of Transportation
- IATA: International Air Transport Association
- ACGIH: American Conference of Governmental Industrial Hygienists
- EINECS: European Inventory of Existing Commercial Chemical Substances
- ELINCS: European List of Notified Chemical Substances
- CAS: Chemical Abstracts Service (division of the American Chemical Society)
- NFPA: National Fire Protection Association (USA)
- HMIS: Hazardous Materials Identification System (USA)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- NIOSH: National Institute for Occupational Safety
- OSHA: Occupational Safety & Health
- TLV: Threshold Limit Value
- PEL: Permissible Exposure Limit
- REL: Recommended Exposure Limit
- Acute Tox. 3: Acute toxicity – Category 3
- Skin Corr. 1B: Skin corrosion/irritation – Category 1B
- Skin Irrit. 2: Skin corrosion/irritation – Category 2
- Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A
- Skin Sens. 1: Skin sensitisation – Category 1
- Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
- Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

· *** Data compared to the previous version altered.**