

In accordance with the provisions of the "Republic of Turkey Ministry of Environment and Urbanization, Regulation on Safety Data Sheets Regarding Hazardous Substances and Mixtures" dated 13 December 2014 and numbered 29204.

1. CHEMICAL PRODUCT / COMPANY IDENTIFICATION

1.1. Material Identification

Product Name SUPERA SC
Active Ingredient Name 350 g/l Equivalent Metallic Copper
Type of Formulation Suspension Concentrate (SC)

1.2. Application of the substance/preparation

Application Fungicide, Agricultural Use Only

1.3. Information about Material Safety Data Sheet Supplier

Supplier **GENNOVA TARIM İLAÇLARI SAN. VE TİC. A.Ş**
Cumhuriyet Bulvarı, TEV 2 İşhanı No: 280 Kat: 1 Daire: 101
Alsancak / İZMİR
Tel: +90 232 464 23 85
Fax +90 232 464 23 95
E-mail: gennova@gennova.com.tr
www.gennova.com.tr

1.4. Telephone Numbers for an Emergency Case

Ulusal Zehir Danışma Merkezi (UZEM) :114
Acil Sağlık Hizmetleri : 112

2. HAZARDS IDENTIFICATION

2.1. Classification of Chemical

Classification (28848 T.C.)
Physical and Chemical Hazard Unclassified
Human Health Acute Tox. 4-H302; Eye Dam. 1-H318; Acute Tox. 2-H330
Environment Aquatic Acute 1- H400; Aquatic Chronic 1- H410

All expressions of (H) codes are given in section 16.

2.2. Label Measures

Labeling (28848 T.C.)

Pictograms



Signal word:

Danger

In accordance with the provisions of the "Republic of Turkey Ministry of Environment and Urbanization, Regulation on Safety Data Sheets Regarding Hazardous Substances and Mixtures" dated 13 December 2014 and numbered 29204.

Hazard Statements

- H302** Harmful if swallowed.
H318 Causes serious eye damage.
H330 Fatal if inhaled.
H410 Very toxic to aquatic life with long lasting effects.
EUH401 To avoid risks to human health and the environment, comply with the instructions for use

Precautionary Statements

- P260** Do not breathe dust/fume/gas/mist/vapours/spray.
P264 Wash... thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301+P312 IF SWALLOWED: if you are not feeling well CALL THE NATIONAL COUNSELING CENTER OF POISON (PHONE NO:114) or call a doctor
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call THE NATIONAL COUNSELING CENTER OF POISON (PHONE NO:114)/doctor
P320 Specific treatment is urgent (see ... on this label).
P391 Collect spillage.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.
P501 Dispose of contents/container to ...

Ingredients Copper Hydroxide

2.3 Other Damages

None.

3. COMPOSITION AND INFORMATION

3.2. Composition

| Name | EC No. | Cas No | Quantity a/a | Sınıflandırma (T.C. 28848) |
|---------------------------------|-----------|------------|--------------|---|
| Copper(II) hydroxide | 243-815-9 | 20427-59-2 | 41 % | Acute Tox. 4-H302 Eye Dam. -H318 Acute Tox. 2-H330 Aquatic Acute 1-H400 Aquatic Chronic 1 H410 M=10, M (Chronic)=1 |
| Cellulose, 2-hydroxyethyl ether | -- | 9004-62-0 | < %1 | Skin Irrit. 2-H315 Eye Irrit. 2-H319 STOT SE 3-H335 (respiratory tract) |

All expressions of (H) codes are given in section 16.

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About Composition

- Stated data has been given in accordance with T.C. and EU regulations.
- See section 8 for occupational exposure limits.

4. FIRST AID MEASURE

4.1. Explanation of First Aid Measures

General Information

If any discomfort continues, consult a doctor. Effects may be delayed. Observe the casualty continuously. Show this safety data sheet to doctor while consulting.

Inhalation

Move the exposed person to fresh air immediately. Consult a doctor. Rest, warmth and fresh air Provide. When breathing difficulties occur, oxygen can be given by properly trained personnel.

Ingestion

If product is ingested, make a conscious and alert person drink lots of milk, egg whites, gelatine solution or, if none is available, large quantities of water. Induce vomiting stomach until the liquid becomes clear. Gastric lavage can be made with milk, water, a solution of sodium bicarbonate or 0.1% solution of potassium ferrocyanide. Search doctor immediately taking this form, the packaging or the product label. What actions should be avoided: Do not give anything by mouth to an unconscious person. Protect product from heat, in case of burns, it releases toxic fumes. Do not use alcohol in any circumstances.

Skin Contact

If product is ingested, make a conscious and alert person drink lots of milk, egg whites, gelatine solution or, if none is available, large quantities of water. Induce vomiting stomach until the liquid becomes clear. Gastric lavage can be made with milk, water, a solution of sodium bicarbonate or 0.1% solution of potassium ferrocyanide. Search doctor immediately taking this form, the packaging or the product label. What actions should be avoided: Do not give anything by mouth to an unconscious person. Protect product from heat, in case of burns, it releases toxic fumes. Do not use alcohol in any circumstances.

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Contact with Eyes

Wash them immediately in water for 15 minutes and seek medical advice immediately, leading the pack, label, leaflet or agronomic prescription product.

4.2. Brief Description of the main symptoms and effects

Severe eye irritation, coughing, wheezing, stomach burning, burning tongue, metallic taste, nausea, vomiting and diarrhea

4.3. First Indications for any immediate medical and special treatment need

Symptomatic treatment. Gastric lavage with potassium ferricyanide or suspension of activated char. Penicillin in acute and chronic cases. Blood transfusion in severe cases.

5. FIRE FIGHTING MEASURE

5.1. Extinguishing media

Product not flammable, but protect of fire. Use extinguishing media appropriate for possible combustibles involved in fire. Fighting fire with fire extinguisher in the form of water mist, CO₂, foam, dry chemical, sand or earth, staying downwind to avoid intoxication.

5.2. Specific Dangers

Avoid temperatures above 120°C, release of smoke from the copper oxide (CuO) and water. Irritating gases and toxic fumes are produced in fire

5.3. Advice for Firefighters

Use not flammable products. In case of fire, use breathing apparatus and fight fire extinguisher with water spray or fog, CO₂, foam, dry chemical, soil or sand.

Additional info

Control the fire fighting area against spills.

Prevent fire-fighting water from entering drains or water pipes.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions

Isolate and signal contaminated area. Avoid contact with skin and eyes. Use PPE. Waterproof overalls, gloves and PVC boots, safety glasses with side shields and masks with filters.

-Removal of ignition sources: Product not flammable. May releases toxic fumes above 120°C. Keep away from combustible products.

-Prevention of inhalation and contact with skin, mucosa and eyes: Use Personal Protection Equipment such as respirators to prevent inhalation; glasses with side shields to avoid contact with eyes, waterproof gloves, rubber boots, pants and shirt sleeve to avoid contact with skin and wide-brimmed hat

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6.2. Precautions for the Environment

Product toxic in aquatic environments. Avoid contamination of drains, ponds, drains and sewers.

6.3 Methods for cleaning

Use absorbent material (sawdust, sand, clay) to contain spilled product. Collect the waste with a shovel in airtight containers and label.

Floor paved: Collecting the material with the aid of a shovel and place in sealed container and labeled properly. Spilled product should no longer be used.

Soil: Remove the layer of contaminated soil until the soil is not contaminated, collect the material and place in sealed container and properly identified.

6.4. References to other sections

See section 8 for personal protection.

See section 11 for additional info on harm to health

See section 13 for waste disposal.

7. HANDLING AND STORAGE

7.1. Precautions for safe handling

Avoid product contact with skin, eyes, clothes and respiration system. Do not eat something and do not smoke while handling.

After each use, remove personal protective equipment and wash hands with soap and plenty of water.

. See section 8 for personal protection.

Containers and packages containing this pesticide must be handled carefully to prevent spills and breakages, and transporters must protect themselves from spills.

The working area of the equipment should be restricted with the appropriate safety systems.

7.2. Incompatible products and materials

Store containers tightly closed in dry, cool and well-ventilated places, and if possible, in closed warehouses specially reserved for pesticides in their original packaging. Packages should be stacked in a rectangular shape with cross supports to increase resistance. Keep out of the reach of children and pets. Keep away from all kinds of food, drink, animal feed, seeds, feed and tobacco products. Do not expose to direct sunlight. The packages or pallets of the product should be stored without direct contact with the floor of the storage place. Do not use or store products that have been opened or whose packaging is damaged. Place warnings on the storage rack / compartment saying "CAUTION TOXIC. Do not store above this temperature as it may form toxic gas at temperatures over 120°C. It can be stored for 2 years in its original package at ambient temperature without physical, chemical and biological deterioration. Suitable packing material: HDPE (high density polyethylene)

7.3. Certain end uses

The defined uses of this product are detailed in Section 1.2.

8. EXPOSURE CONTROL AND PERSONAL PROTECTION

8.1. Occupational exposure limits

No exposure limit established

In accordance with the provisions of the "Republic of Turkey Ministry of Environment and Urbanization, Regulation on Safety Data Sheets Regarding Hazardous Substances and Mixtures" dated 13 December 2014 and numbered 29204.

8.2 Exposure controls

Personal Protective Equipment



Process Conditions

Provide eyewash station, safety shower, appropriate personal protective equipment

Technical Measures

Apply local and general ventilation to keep airborne product concentrations below exposure limits. Obey occupational exposure limits and reduce risk of inhalation of vapors. If possible, seek additional advice from Occupational Hygienists or experts.

Respiratory Protection Measures

In cases where respiratory devices are required during the use of this substance, use CE certified full face mask with cartridge air purification. Make sure the environment is well ventilated.

Hand Protection

Impervious PVC, neoprene or natural rubber gloves should be used in handling situations where there is a danger of contact with the product.

Eye Protection

In case of contact with the eyes, safety glasses with side shields that fit well, resistant to chemical splashes and dust should be used. It is safer to use a chemical resistant full face shield to protect the face and eyes together. Do not wear contact lenses.

Health Measures

Wash hands at every shift change and before eating, smoking and using the toilet. Take off immediately all contaminated clothing. If skin becomes contaminated, wash immediately with soap and water. Do not eat, drink or smoke during use. Keep contaminated clothing separate and wash before re-wearing.

Skin Protection

Wear standard overalls and type 3 suits. If possible, wear two layers. It is recommended to wear polyester / cotton or cotton overalls under the chemical protective equipment. If chemical splashes, spray or significant chemical contamination on chemical protective suit, clean as much as possible, then carefully remove and dispose according to manufacturer's recommendation.

Environmental exposure controls

Act in accordance with local and national laws.

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9. PHYSICO CHEMICAL PROPERTIES

9.1 Information on physical and chemical properties

| | |
|-------------------------------------|---|
| Appearance | : Liquid |
| Colour | : Blue |
| Odor | : Characteristic |
| Ph | : 8,0 – 9,0 (% 10 p/v solution) |
| Specific weight | : 1,39 – 1,44 g/ ml |
| Degree of fineness | : Wet sieve test > 75 µm 99,90 % (CIPAC MT 59.3) |
| Explosive Limits Upper/Lower | : Not explosive |
| Suspension stability | : > 80% (CIPAC MT 15.1) |
| Permanent foam formation | : < 1.0 ml (CIPAC Mt 47.2) |
| Auto-ignition temperature | : Based on the water content the product does not ignite. |
| Viscosity | : 1300 – 1700 cps |
| Solubility | : 2.9 mg/L in water 25 °C decomposes in hot water. Soluble in acids |
| Stability | : Stable in normal conditions |
| Decomposition temperature | : >120 °C (CuO fumes and water) |
| Oxidizing properties | : Not oxidizing and not fire-propagating. |

9.2. Other informations

None

10. STABILITY AND REACTIVITY

10.1. Reaction

No known.

10.2. Chemical Stability

Stable under normal conditions

10.3. Possibility of hazardous reactions

No known.

10.4. Conditions to avoid

Avoid excessive heat, humidity and direct sunlight. It is exothermic in ammonium and acids.

10.5. Materials to avoid

Incompatible with Sodium and Potassium salts, Ammonium, Strong acids. It is corrosive to aluminum.

10.6. Hazardous decomposition products

During combustion, toxic and irritating copper oxide, CO and NOx containing gas, vapors may be released.

11. TOXICOLOGICAL INFORMATION

11.1. Information on toxic effects

Acute toxicity

Acute Oral Toxicity : LD50 (Rat) : 500 mg / kg

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Acute Dermal Toxicity : LD50 (Rat) : >2000 mg / kg
Acute Respiratory Toxicity : LC50 (Rat) : > 20,84 mg/l
Of very high toxicity after short-term inhalation.

Skin corrosion/irritation

Not classified for Skin Corrosion/Irritation.

Serious eye damage / irritation

Causes eye damage.

Skin and respiratory sensitization

Not classified for Skin Sensitization. It is not expected that the product causes respiratory sensitization.

Germ cell mutagenicity (in vitro – in vivo)

Negative effects are not expected

Carcinogenicity

Negative effects are not expected.

Reproductive toxicity (Fertility – Developmental)

Negative effects are not expected.

Specific Target Organ Toxicity - Single Exposure

Negative effects are not expected.

Specific Target Organ Toxicity – Repeated Exposure

Negative effects are not expected.

Aspiration hazard

Negative effects are not expected.

12. ECOLOGICAL INFORMATION

12.1. Toxicity

Toxic to livestock, fishes and aquatic organisms.

Acute Aquatic Toxicity

Fish (*Fundulus heteroclitus*) LC50 = 8.0 mg/L (96 h).

Fish (*Pinnephales promelas*) LC50 = 47.0 mg/L (96 h).

Birds (*Gallus Domesticus*) LD50 = 1700 mg/Kg (21 days).

Microcrustacea (*Daphnia pulex*) EC50 = 0.21 mg/L (48 h).

12.2. Persistence / degradability

Not biodegradable. Insoluble in water

12.3. Bioaccumulative potential

It is not expected that the product presents bioaccumulative potential in aquatic organisms.

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12.4. Mobility in soil

Product is considered a low transportable (Class IV)

12.5. Results of PBT and vPvB assessment

This product does not contain any PBT or vPvB.

12.6. Other adverse effects

None known

13. DISPOSAL CONSIDERATIONS

13.1 Methods of Disposal

Do not contaminate ponds, waterways or ditches with product. Do not pour product residue into drains or septic tanks. Also, during disposal, be careful not to contaminate food, feed or water. Do not apply directly to water, areas with surface water, or areas below the average high water mark. Waste of the product should be disposed of in accordance with the legislation.

Waste code 02 01 08* Agrochemical wastes containing dangerous substances.

14. TRANSPORTATION INFORMATION

General

This mixture may be classified as dangerous. However, follow the relevant regulation for situations where the packaging is in limited / exceptional quantities.

14.1. UN Number

| | |
|-----------------------------|------|
| UN No. (ADR/RID/ADN) | 3082 |
| UN No: (IMDG) | 3082 |
| UN No: (ICAO) | 3082 |

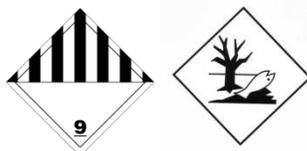
14.2 UN Proper Shipping Name

| | |
|--|--|
| Proper Shipping Name N.O.S. (Copper Hydroxide) | ENVIRONMENTALLY HAZARDOUS SUBSTANCE LIQUID, I, |
|--|--|

14.3. Transport hazard classes

| | |
|--------------------------|---|
| ADR/RID/ADN Class | 9 |
| ADR/RID/ADN Class | Class 9: Miscellaneous dangerous substances and objects |
| ADR Label No. | 9 |
| IMDG Class | 9 |
| ICAO Class | 9 |
| Transport Labels | |

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14.4. Packing grupu

| | |
|----------------------------------|-----|
| ADR/RID/ADN Packing group | III |
| IMDG Packing group | III |
| ICAO Packing group | III |

14.5. Environmental damages

Environmentally hazardous substance / Marine pollutant Yes

14.6. Special precautions for user

| | |
|--------------------------------|----------|
| Limited Quantity | 5 L |
| EMS | F-A, S-F |
| Emergency action code | ·3Z |
| Hazard no. (ADR) | 90 |
| Tunnel restriction code | (E) |

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code

Not Applicable

15. LEGISLATION INFORMATION

15.1. Safety, health and environmental legislation specific for the substance or mixture

National legislation

- T.C. Ministry of Environment and Urbanization, Regulation on Classification, Labeling and Packaging of Substances and Mixtures, dated December 11, 2013, No. 28848.
- T.C. Ministry of Environment and Forestry, Regulation on Classification, Packaging and Labeling of Dangerous Substances and Preparations, dated December 26, 2008, No.27092.
- T.C. Ministry of Environment and Urbanization, Waste Management Regulation dated April 2, 2015 and numbered 29314.
- T.C. Ministry of Labor and Social Security, Regulation on Health and Safety Measures in Working with Chemical Substances, dated August 12, 2013, numbered 28733.
- T.C. Ministry of Labor and Social Security, Regulation on the Use of Personal Protective Equipment at Workplaces, dated 2 July 2013 and numbered 28695.
- T.C. Ministry of Labor and Social Security, Occupational Health and Safety Law No. 6331, dated June 30, 2012

16. OTHER INFORMATION

Abbreviations

| | |
|-----|---|
| ADN | : European Agreement on the International Transport of Dangerous Goods by Inland Waterways. |
| ADR | : European Agreement on the International Transport of Dangerous Goods by Road. |

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| | |
|----------------------------|---|
| BCF | : Bioconcentration Factor. |
| CAS | : The Chemical Theories Service. |
| CIPAC | : Colloborative International Pesticides Analytical Council |
| DT50 | : The time it takes for 50% of the active substance in the soil to degrade. |
| DT90 | : The time it takes for 50% of the active substance in the soil to degrade. |
| EC No | : European Community Number. |
| GBF | : Safety Data Sheet |
| IATA | : International Air Transport Association. |
| IBC code | : International Bulk Chemical Code. |
| ICAO-TI | : Technical Specifications for the Safe Transport of Dangerous Goods by Air. |
| IMDG | : International Shipping Goods. |
| LC50 | : Concentration of substance causing 50% (half) death in the test animal group. |
| LD50 | : Dose of substance causing 50% (half) death in the test animal group. |
| MARPOL 73/78 | : International Convention for the Prevention of Pollution from Ships, 1973, as amended by the 1978 Protocol. |
| OES | : Occupational Exposure Standard. |
| PBT | : Persistent, Bioaccumulative and Toxic Substance. |
| RID | : European Agreement on the International Transport of Dangerous Goods by Rail. |
| STEL | : |
| Short term exposure limit. | |
| TWA | : Occupational Exposure Limits. |
| vPvB | : Very persistent, very bioaccumulative. |

Revision explanation

It has been rearranged according to the provisions of the CLP regulation.

Prepared by

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All of the Hazard Statements

| | |
|-------------|---|
| H302 | Harmful if swallowed. |
| H315 | Causes skin irritation. |
| H318 | Causes serious eye damage. |
| H319 | Causes serious eye irritation. |
| H330 | Fatal if inhaled. |
| H335 | May cause respiratory irritation |
| H400 | Very toxic to aquatic life. |
| H410 | Very toxic to aquatic life with long lasting effects. |

LEGAL NOTICE : The information provided in this Safety Data Sheet is correct to the best of our knowledge as of the publication date. The information provided here is intended only as a guide for safe use, transport, storage and disposal and should not be considered a warranty or product specification. The information relates only to the product concerned and may not apply to the case of combination with other substances or to different processes, unless stated otherwise on the form.