

# Safety Data Sheet

acc. to OSHA HCS

Printing date 08/27/2015

Reviewed on 08/27/2015

## 1 Identification

- **Product identifier** 50745-254
- **Trade name:** **ORANGE-SOL Rust Remover**
- **Application of the substance / the mixture** Removal or rust, hard water minerals, salts, etc.
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
ORANGE-SOL Blending & Packaging, Inc.  
1400 N. Fiesta Blvd., Bldg. 100  
Gilbert, AZ 85233-1000  
USA  
Toll Free 800-877-7771  
Tel 480-497-8822
- **Information department:** Product safety department
- **Emergency telephone number:**  
Infotrac  
800-535-5053

## 2 Hazard(s) Identification

- **Classification of the substance or mixture**



GHS05 Corrosion

Met. Corr.1 H290 May be corrosive to metals.

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC** Not applicable.
- **Information concerning particular hazards for human and environment:**  
The product has to be labeled due to the calculation procedure of international guidelines.
- **Classification system:**  
The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

- **Label elements**

- **Labelling according to EU guidelines:**

Observe the general safety regulations when handling chemicals.

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

- **Safety phrases:**

Keep locked up and out of the reach of children.

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

Wear suitable protective clothing, gloves and eye/face protection.

In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Dispose of this material and its container to hazardous or special waste collection point.

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- **Classification system:**
- **HMIS-ratings (scale 0 - 4)**

HEALTH	2	Health = 2
FIRE	0	Fire = 0
REACTIVITY	0	Reactivity = 0

- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

## 3 Composition/Information on Ingredients

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

<b>Dangerous components:</b>	
Urea Monohydrochloride	0-20%

## 4 First-Aid Measures

- **Description of first aid measures**
- **After inhalation:**  
Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- **After skin contact:**  
Flush contaminated skin with plenty of water. Continue to rinse for at least 20 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- **After eye contact:**  
Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. Get medical attention.
- **After swallowing:**  
Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt

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or waistband.

- **Information for doctor:**

- **Most important symptoms and effects, both acute and delayed**

Eye Contact: Causes serious eye damage

Inhalation: Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

Skin Contact: Causes mild skin irritation

Ingestion: Harmful if swallowed. Irritating to mouth, throat and stomach

- **Indication of any immediate medical attention and special treatment needed**

Notes to Physician: In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Specific Treatments: No specific treatment Protection of First Aiders: No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

## 5 Fire-Fighting Measures

- **Extinguishing media**

- **Suitable extinguishing agents:** Use an extinguishing agent suitable for the surrounding fire.

- **Special hazards arising from the substance or mixture**

At temperatures above 60 °C/140°F acid action on most metals may release hydrogen, a highly flammable and explosive gas.

- **Advice for firefighters** No special measures are required.

- **Protective equipment:**

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## 6 Accidental Release Measures

- **Personal precautions, protective equipment and emergency procedures**

No action shall be taken involving any personal risk or without suitable training. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

- **Environmental precautions:**

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

- **Methods and material for containment and cleaning up:**

Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas.

Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

- **Reference to other sections**

See Section 7 for information on safe handling.

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See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

## 7 Handling and Storage

- **Handling:**

- **Precautions for safe handling**

Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

- **Information about protection against explosions and fires:**

Store in tightly closed, original container away from flame or other ignition source.

- **Conditions for safe storage, including any incompatibilities**

- **Storage:**

- **Requirements to be met by storerooms and receptacles:**

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures.

- **Information about storage in one common storage facility:** Not required.

- **Further information about storage conditions:**

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

- **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**

Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

- **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.

- **Exposure controls** Occupational Exposure Limits: None

- **Personal protective equipment:**

- **General protective and hygienic measures:**

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

- **Breathing equipment:**

Use a properly fitted, air-purifying or supplied air respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe

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working limits of the selected respirator.

### Protection of hands:



Protective gloves

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

· **Material of gloves** Chemical-resistant, impervious gloves complying with an approved standard

### Eye protection:



Tightly sealed goggles

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

### Body protection:

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

### Limitation and supervision of exposure into the environment

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

## 9 Physical and Chemical Properties

### Information on basic physical and chemical properties

#### General Information

#### Appearance:

Form:	Fluid
Color:	Dark Brown
Odor:	Acidic

· pH-value at 20 °C (68 °F): < 1

#### Change in condition

Boiling point/Boiling range: 100 °C (212 °F)

· Flash point: Not applicable.

· Flammability (solid, gaseous): Non-Flammable

· Auto igniting: Product is not selfigniting.

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· <b>Danger of explosion:</b>	Product does not present an explosion hazard.
· <b>Explosion limits:</b>	
<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
· <b>Vapor pressure:</b>	Not determined.
· <b>Weight per Gallon:</b>	7.94 lbs/gal
· <b>Specific Gravity</b>	.951
· <b>Evaporation rate</b>	(BuAc=1) <.01
· <b>Solubility in / Miscibility with Water:</b>	Fully miscible.
· <b>Other information</b>	No further relevant information available.

## 10 Stability and Reactivity

- **Reactivity** No specific test data related to reactivity available for this product or its ingredients
- **Chemical stability** Stable
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No specific data.
- **Incompatible materials:**  
Reactive or incompatible with the following materials: oxidizing materials. This material may be extremely hazardous in contact with chlorates and nitrates. Contact with hypochlorites (eg. Chlorine bleach, sulfides or cyanides) will liberate toxic gases. Contact with alkaline materials (eg. Aqua ammonia) will generate heat.
- **Hazardous decomposition products:**  
Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## 11 Toxicological Information

- **Information on toxicological effects**
- **Acute toxicity:**

· <b>LD/LC50 values that are relevant for classification:</b>
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<b>Formula V</b>
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Oral	LD50	1120.9 mg/kg (rat)
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- **Primary irritant effect:**
- **on the skin:** Mild skin Irritant (OECD 404)
- **on the eye:** Eye Corrosive (OECD 405)
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**

- **Carcinogenic categories**

· <b>IARC (International Agency for Research on Cancer)</b>
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None of the ingredients is listed.
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· <b>NTP (National Toxicology Program)</b>
None of the ingredients is listed.
· <b>OSHA-Ca (Occupational Safety &amp; Health Administration)</b>
None of the ingredients is listed.

## 12 Ecological Information

- **Toxicity**

Ingredient Name: Organic acid salt Result: Acute LC50 71mg/L Species: Ceriodaphnia dubia  
Exposure: 48hrs

Ingredient Name: Organic acid salt Result: Acute LC0 >142mg/L Species: Rainbow Trout Exposure: 96hrs

- **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.
- **Additional ecological information:**
- **General notes:** Biodegradable
- **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:**

Biodegradable

This product has been evaluated for RCRA characteristics and does not meet the criteria for a hazardous waste, if discarded in its purchased form.

- **Uncleaned packagings:**
- **Recommendation:**

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Neutralize waste fluids with with soda ash.

The generation of waste should be avoided or minimized wherever possible.

Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

### 14 Transport Information

· UN-Number	
· DOT, ADN	not regulated
· IMDG, IATA	1760
· UN proper shipping name	
· DOT, ADN	not regulated
· IMDG, IATA	Corrosive liquid N.O.S (urea monohydrochloride)
· Transport hazard class(es)	
· DOT, ADN	
· Class	not regulated
· IMDG, IATA	8
· Class	not regulated
· Packing group	
· DOT	not regulated
· IMDG, IATA	III
· 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:	
· DOT	Exempt under DOT 49 CFR 173.154 (d). This material is corrosive to aluminum only. Not corrosive to mild steel and skin
· IMDG	This material is corrosive to aluminum only. Not corrosive to mild steel and skin
· IATA	This material is corrosive to aluminum only. Not corrosive to mild steel and skin

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· UN "Model Regulation":

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## 15 Regulatory Information

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

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

None of the ingredients is listed.

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

None of the Ingredients is listed.

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

None of the ingredients is 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.

- **Carcinogenic categories**

- **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

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

None of the ingredients is listed.

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

None of the ingredients is listed.

- **Product related hazard informations:**

Observe the general safety regulations when handling chemicals.

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

- **Safety phrases:**

Keep locked up and out of the reach of children.

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

Wear suitable protective clothing, gloves and eye/face protection.

In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Dispose of this material and its container to hazardous or special waste collection point.

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

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## 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 SDS:** Environment protection department.
- **Contact:** Mr. Farnsworth
- **Date of preparation / last revision** 08/27/2015 / -

- **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

Met. Corr.1: Corrosive to metals, Hazard Category 1

Acute Tox. 4: Acute toxicity, Hazard Category 4

Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1

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