

## SAFETY DATA SHEET

acc. to 29 CFR 1910.1200 App D

Version number: GHS 1.0

Date of compilation: 2020-02-21  
OROAGRI 160:

### SECTION 1: Identification

#### 1.1 Product identifier

Trade name **ORO-4**

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses Agricultural Chemical

Uses advised against Do not use for products which come into direct contact with the skin.

#### 1.3 Details of the supplier of the safety data sheet

Oro Agri, Inc.  
2788 S. Maple Ave.  
Fresno CA 93725  
United States

e-mail: SDS-NA@oroagri.com

#### 1.4 Emergency telephone number

Incident, Spill, Leak, Fire, Exposure or Accident  
Call CHEMTREC Day or Night

Within USA and Canada:  
1 (800) 424-9300

Outside USA:  
+1 (703) 741-5970.

### SECTION 2: Hazard(s) identification

#### 2.1 Classification of the substance or mixture

Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

Skin corrosion/irritation. 1.  
Serious eye damage/eye irritation. 1.

The most important adverse physicochemical, human health and environmental effects

Skin corrosion produces an irreversible damage to the skin; namely, visible necrosis through the epidermis and into the dermis.

#### 2.2 Label elements

Labelling acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

- Signal word **DANGER**

- Pictograms



Hazard statements

Causes severe skin burns and eye damage.

## Precautionary statements - prevention

Do not breathe dusts or mists.  
Wear eye protection/face protection.

## Precautionary statements - response

If swallowed: Rinse mouth. Do NOT induce vomiting.  
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
If inhaled: Remove person to fresh air and keep comfortable for breathing.  
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
Immediately call a poison center/doctor.  
Specific treatment (see on this label).  
Wash contaminated clothing before reuse.

## Precautionary statements - storage

Store locked up.

## Precautionary statements - disposal

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

## 2.3 Other hazards

### Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

#### Description of the mixture

Name of substance	CAS No	Wt%
proprietary component or mixture		50 - < 75
monocarbamide dihydrogen sulfate	21351-39-3	50 - < 75

Components, CAS numbers and/or concentrations not listed are either non-hazardous, below reporting limits or have been withheld as trade secret.

## SECTION 4: First-aid measures

### 4.1 Description of first-aid measures

#### General notes

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing and wash it before reuse. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

#### Following inhalation

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. In case of respiratory tract irritation, consult a physician. Provide fresh air.

#### Following skin contact

Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation or rash occurs: Get medical advice/attention.

#### Following eye contact

Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

#### Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting. In all cases of doubt, or when symptoms persist, seek medical advice.

## 4.2 Most important symptoms and effects, both acute and delayed

Harmful if inhaled. Causes eye irritation. Localized redness, edema, pruritis and/or pain.

## 4.3 Indication of any immediate medical attention and special treatment needed

In case of burns and frostbite: Rinse immediately contaminated clothing and skin with plenty of water before removing clothes. Symptoms may develop several hours following exposure; medical observation therefore necessary for at least 48 hours.

## SECTION 5: Fire-fighting measures

### 5.1 Extinguishing media

Suitable extinguishing media

Water spray, BC-powder, Carbon dioxide (CO<sub>2</sub>)

Unsuitable extinguishing media

Do not use water jet as this will spread the fire.

### 5.2 Special hazards arising from the substance or mixture

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

Hazardous combustion products

Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>)

### 5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Coordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

Special protective equipment for firefighters

Protective clothing against liquid and gaseous chemicals, including liquid aerosols and solid particles, Wear self-contained breathing apparatus

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety. Ventilate affected area. Wear suitable protective clothing.

For emergency responders

Wear breathing apparatus if exposed to vapors/dust/aerosols/gases. Eliminate all ignition sources if safe to do so. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wear suitable protective clothing.

### 6.2 Environmental precautions

Avoid release to the environment. Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it.

### 6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill

Set up barriers, Covering of drains

Advice on how to clean up a spill

Wipe up with absorbent material (e.g. cloth, fleece). Collect spillage: absorbent material (e.g. sand, diatomaceous earth, acid binder, universal binder, sawdust, etc.)

Appropriate containment techniques

Use of adsorbent materials. Stop leak if safe to do so.

Equipment required for containment/clean-up

Non-sparking tools and equipment, Collecting basins for spills, Absorbent material (e.g. sand, diatomaceous earth, acid binder, universal binder, sawdust, etc.), Personal protective equipment: see section 8

Other information relating to spills and releases

Ventilate affected area. Place in appropriate containers for disposal. Take any precaution to avoid mixing with combustibles.

#### 6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

Recommendations

- Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation. Use only in well-ventilated areas. Never add water to this product.

- Handling of incompatible substances or mixtures

Do not mix with alkali.

- Keep away from

Caustic solutions

Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs. Avoid contact with eyes. Wear personal protective equipment/face protection. Avoid release to the environment. Employ good industrial hygiene practice.

#### 7.2 Conditions for safe storage, including any incompatibilities

Control of the effects

Keep in a cool, well-ventilated place. Protect from sunlight. Store in a dry place. Store in a closed container. Take precautionary measures against static discharge. Ground/bond container and receiving equipment. Keep away from clothing as well as other incompatible materials. Incompatible materials: see section 10.

Protect against external exposure, such as

UV-radiation/sunlight

#### 7.3 Specific end use(s)

See section 16 for a general overview.

### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

Occupational exposure limit values (Workplace Exposure Limits)							
Country	Name of substance	Identifier	TWA [ppm]	TWA [mg/m <sup>3</sup> ]	STEL [ppm]	STEL [mg/m <sup>3</sup> ]	Source
US	proprietary component or mixture	TLV®			1,000		ACGIH® 2019
US	proprietary component or mixture	REL	1,000 (10 h)	1,900 (10 h)			NIOSH REL
US	proprietary component or mixture	PEL (CA)	1,000	1,900			Cal/OSHA PEL
US	proprietary component or mixture	PEL	1,000	1,900			29 CFR 1910.1000

Notation

STEL

short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period

## Notation

TWA (unless otherwise specified)  
time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified)

## 8.2 Exposure controls

### Appropriate engineering controls

Exhaust ventilation. Use explosion-proof electrical/ventilating/lighting/tooling /equipment.

### Individual protection measures (personal protective equipment)

#### Eye/face protection

Wear eye/face protection. Use safety goggle with side protection.

#### Skin protection

##### - Hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

##### - Other protection measures

Protective clothing against liquid chemicals. Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

#### Respiratory protection

In case of inadequate ventilation wear respiratory protection.

#### Thermal hazards

Wear protective gloves against thermal risks (heat and/or fire).

#### Environmental exposure controls

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

### 8.2.4 Advice on general occupational hygiene

Employ good industrial hygiene practice. Do not eat, drink or smoke when using this product. Wash contaminated clothing before reuse.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

Physical state	liquid
Color	orange
Odor	Citrus
Odor threshold	no data available

#### Other safety parameters

pH (value)	<1 (25 °C) (acid)
Melting point/freezing point	not determined
Initial boiling point and boiling range	not determined
Flash point	not determined
Evaporation rate	not determined

Flammability (solid, gas)	not relevant, (fluid)
Explosive limits	not determined
Vapor pressure	not determined
Density	1.2 g/cm <sup>3</sup> at 25 °C
Vapor density	this information is not available
Solubility(ies)	not determined

#### Partition coefficient

- n-octanol/water (log KOW)	this information is not available
Auto-ignition temperature	not determined
Decomposition temperature	no data available

#### Viscosity

- Dynamic viscosity	50 mPa s
Explosive properties	none
Oxidizing properties	none

## 9.2

### Other information

there is no additional information

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

This material is not reactive under normal ambient conditions. Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials".

### 10.2 Chemical stability

Stable under normal conditions of use.

### 10.3 Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

### 10.4 Conditions to avoid

Incompatible materials: see section 10.

### 10.5 Incompatible materials

Oxidizers

### 10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Test data are not available for the complete mixture.

#### Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

#### Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

##### Acute toxicity

Shall not be classified as acutely toxic.

Acute toxicity estimate (ATE) of components of the mixture			
Name of substance	CAS No	Exposure route	ATE
proprietary component or mixture		inhalation: dust/mist	3.69 mg <sub>i</sub> /4h
monocarbamide dihydrogen sulfate	21351-39-3	oral	500 mg/kg

##### Skin corrosion/irritation

Causes severe skin burns and eye damage.

##### Serious eye damage/eye irritation

Causes serious eye damage.

##### Respiratory or skin sensitization

Not classified.

##### Germ cell mutagenicity

Not classified.

##### Carcinogenicity

Not classified.

##### Reproductive toxicity

Not classified.

##### Specific target organ toxicity - single exposure

Not classified.

##### Specific target organ toxicity - repeated exposure

Not classified.

##### Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

## SECTION 12: Ecological information

### 12.1 Toxicity

Not determined.

### 12.2 Persistence and degradability

Data are not available.

### 12.3 Bioaccumulative potential

Data are not available.

### 12.4 Mobility in soil

Data are not available.

### 12.5 Results of PBT and vPvB assessment

Data are not available.

## 12.6 Other adverse effects

Data are not available.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packages

Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

#### Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

## SECTION 14: Transport information

14.1 UN number not assigned

14.2 UN proper shipping name not assigned

14.3 Transport hazard class(es) not assigned

14.4 Packing group not assigned

14.5 Environmental hazards

14.6 Special precautions for user

There is no additional information.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

### Information for each of the UN Model Regulations

#### **Transport of dangerous goods by road or rail (49 CFR US DOT)**

Not regulated if transported by motor vehicle or railcar in packaging that will not react dangerously or be degraded by this material. For reference, see 49 CFR 173.154(d). If this exemption is not used shipments should be shipped: UN1760, (urea sulfate), corrosive liquid, n.o.s., Class 8, Packaging group III, Corrosive.

Note: Corrosive to mild steel. Do not ship in aluminum tanks.

#### **International Maritime Dangerous Goods Code (IMDG)**

Not determined.

#### **International Civil Aviation Organization (ICAO-IATA/DGR)**

Not determined.

## SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

### **National regulations (United States)**

**Toxic Substance Control Act (TSCA)** all ingredients are listed

### **Superfund Amendment and Reauthorization Act (SARA TITLE III )**

- The List of Extremely Hazardous Substances and Their Threshold Planning Quantities (EPCRA Section 302, 304)

none of the ingredients are listed

### **Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)**

- List of Hazardous Substances and Reportable Quantities (CERCLA section 102a) (40 CFR 302.4)

none of the ingredients are listed



## Clean Air Act

none of the ingredients are listed

## 15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

## SECTION 16: Other information, including date of preparation or last revision

<b>Revision date</b>	2020-02-21
<b>Version number</b>	GHS 1.0

### Key literature references and sources for data

OSHA Hazard Communication Standard (HCS), 29 CFR 1910.1200.

Transport of dangerous goods by road or rail (49 CFR US DOT).

### Classification procedure

Physical and chemical properties: The classification is based on tested mixture.  
Health hazards

### Disclaimer

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