SECTION 1: Identification

1.1 Product identifier

Product Trade Name:	**ATTITUDE®**
Other means of identification	Not applicable
Other means of identification:	None

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

Relevant identified uses	Utility Modifier
Uses advised against	None Known

1.3 Details of the supplier of the safety data sheet

Manufacturer

Oro Agri, Inc.
2788 S Maple Ave.
Fresno, CA 93725
United States
Telephone: +1(559) 442-4996
Email: 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: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Hazardous Products Regulations (HPR amended on December 15, 2022)

GHS Classifications

Hazard statement	Hazard class	Category
H332	Acute toxicity (inhal.).	4
H318	Serious eye damage/eye irritation.	1

2.2 Label elements

Labeling (GHS Ca)

- Signal word **DANGER**

- Pictograms

Hazard statements

Causes serious eye damage. Harmful if inhaled.

Code	Precautionary statements - prevention
P261	Avoid breathing mist/vapours/spray.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear eye protection/face protection.

Code	Precautionary statements - response.
P304+P340	IF INHALED: Remove person to fresh air and keep at rest in a position 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 a poison center/doctor if you feel unwell.

Precautionary statements - storage

Store in a well-ventilated place.

Precautionary statements - disposal

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

2.3 Other hazards

None known.

2.4 Supplemental information

None.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not relevant (mixture)

3.2 Mixtures

Description of the mixture

Citric acid (CAS 77-92-9) 15 - 20%

Proprietary mixture* 70 - 90%

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

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. Provide fresh air. In case of respiratory tract irritation, consult a physician.

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

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Following ingestion

Rinse mouth. Get medical attention if symptoms occur. Do NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Harmful if inhaled. In cases of doubt, or when symptoms persist, seek medical advice.

4.3 Indication of any immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water fog. Foam. Dry chemical powder. Carbon dioxide (CO_2).

Unsuitable extinguishing media

Do not use water jet as an extinguisher, 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.

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 water separately. Fight fire with normal precautions from a reasonable distance.

Specific methods

Use standard firefighting procedures and consider the hazards of other involved materials.

Special protective equipment for firefighters

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

5.4 General fire hazards

None.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist or vapour. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

6.2 Environmental precautions

Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

6.3 Methods and material for containment and cleaning up

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools. Keep combustibles (wood, paper, oil, etc.) away from spilled material. Prevent product from entering drains.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.

Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Keep away from open flames, hot surfaces and sources of ignition. When using do not smoke. Do not get in eyes, on skin, or on clothing. Avoid prolonged exposure. Explosion-proof general and local exhaust ventilation. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-parking tools and explosion-proof equipment. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices. Persons susceptible to allergic reactions should not handle this product.

7.2 Conditions for safe storage, including any incompatibilities

Keep away from heat, sparks and open flame. Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS).

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

This information is not available.

8.2 Exposure controls

Biological limit values

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls

Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station. Provide easy access to water supply and eye wash facilities.

Individual protection measures (personal protective equipment)

Eye/face protection

Wear safety glasses with side shields (or goggles). Wear a face shield if there is a risk of splashing.

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

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Selection and use of respiratory protective equipment should be in accordance with OSHA General Industry Standard 29 CFR 1910.134; or in Canada with CSA Standard Z94.4.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

Environmental exposure controls

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

General hygiene considerations

When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	Liquid
Colour	Green (Various)
Odour	Citrus
Odour threshold	Not determined
pH (value)	6.8 - 7.8
Melting point/freezing point	Not determined
Initial boiling point and boiling range	Not determined
Flash point	36 °C (96.8°F) - (Pensky-Martens closed cup)
Evaporation rate	Not determined
Flammability (solid, gas)	Not relevant(liquid)
Lower and upper explosion limit	Data are not available
Vapor pressure	Not determined
Density	0.98 – 1.15 g/cm³
Vapour density	Not determined

Relative density	Not determined
Solubility(ies): Water solubility	Completely
Partition coefficient: n-octanol/water (log KOW)	Not available
Auto-ignition temperature	Not determined
Dynamic viscosity	80 – 150 mPa s
Kinematic viscosity	Not determined
Decomposition temperature	Not available
Particle characteristics	Not relevant(liquid)

9.2 Other information There is no additional information

SECTION 10: Stability and reactivity

10.1 Reactivity

The product is stable and non-reactive under normal conditions of use, storage and transport.

10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

10.3 Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

10.4 Conditions to avoid

Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.

Hints to prevent fire or explosion

Use explosion-proof electrical/ventilating/lightning/equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

10.5 Incompatible materials

Strong oxidizing agents.

10.6 Hazardous decomposition products

Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Test data are not available for the complete mixture.

Information on likely routes of exposure

Inhalation

Prolonged inhalation may be harmful.

Skin contact

May be harmful in contact with skin.

Eye contact

Causes serious eye damage.

Ingestion

May be harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics

Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause an allergic skin reaction. Dermatitis. Rash.

Acute toxicity

Harmful if inhaled.

ATTITUDE (CAS Mixture)

Exposure route	Endpoint	Value	Species	Method
Oral	LD50	2,500 $^{mg}/_{kg}$	Rat	OECD 423
Dermal	LD50	>2,000 $^{mg}/_{kg}$	Rat	OECD 402
Inhalation: dust/mist	LC50	>4.161 $^{mg}/_{l}$/4h	Rat	OECD 403

Skin corrosion/irritation

Non skin irritant.

Skin contact

ATTITUDE
OECD 404
Result: Non skin irritant
Species: Rabbit.

Serious eye damage/eye irritation

Causes serious eye damage.

Eye contact

ATTITUDE
OECD 405
Result: Severe eye irritation. Risk of serious damage to eyes.
Species: Rabbit.

Respiratory sensitization

Data are not available.

Skin sensitisation

Non skin sensitizer.

Sensitisation

ATTITUDE
OECD 406
Result: Non skin sensitizer.
Species: Guinea pig.

Germ cell mutagenicity

No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity

This product is not considered to be a carcinogen by IARC, NTP, or OSHA.

-IARC Monographs on the Evaluation of Carcinogenic Risks to Humans

Not listed.

-NTP Report on Carcinogens

Not Listed.

-OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not Listed.

Reproductive toxicity

Data are not available.

Specific target organ toxicity (STOT)

- Specific target organ toxicity - single exposure

Data are not available.

-Specific target organ toxicity - repeated exposure

Data are not available.

Aspiration hazard

Not an aspiration hazard.

Chronic effects

Prolonged inhalation may be harmful.

Symptoms related to the physical, chemical and toxicological characteristics

Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

SECTION 12: Ecological information

12.1 Toxicity

This product is not classified for environmental hazardous under Hazardous Products Regulations (SOR/2015-17). However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

12.2 Persistence and degradability

No data is available on the degradability of this product.

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 Endocrine disrupting properties

Information on this property is not available.

12.7 Other adverse effects

No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

SECTION 13: Disposal considerations

13.1 Disposal instructions

Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local / regional / national / international regulations.

Hazardous waste code

The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products

Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging

Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14: Transport information

14.1 DOT

Not regulated as dangerous goods.

14.2 IATA

Not regulated as dangerous goods.

14.3 IMDG

Not regulated as dangerous goods.

14.4 Transport in bulk according to Annex II of MARPOL 73/78 and IBC code

Not applicable.

14.5 Additional Information

Non-environmentally hazardous according to the dangerous goods regulations.

SECTION 15: Regulatory information

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

National inventories

Country	Inventory	On inventory (yes/no)*
AU	AIIC	Yes
CA	DSL	Yes
CA	NDSL	No
CN	IECSC	Yes
EU	ECSI	No
EU	REACH Reg.	No
JP	CSCL-ENCS	No

Country	Inventory	On inventory (yes/no)*
KR	KECI	Yes
NZ	NZIoC	Yes
PH	PICCS	Yes
US	TSCA	Yes

Legend

AIIC	Australian Inventory of Industrial Chemicals
CSCL-ENCS	List of Existing and New Chemical Substances (CSCL-ENCS)
DSL	Domestic Substances List (DSL)
ECSI	EC Substance Inventory (EINECS, ELINCS, NLP)
IECSC	Inventory of Existing Chemical Substances Produced or Imported in China
KECI	Korea Existing Chemicals Inventory
NDSL	Non-domestic Substances List (NDSL)
NZIoC	New Zealand Inventory of Chemicals
PICCS	Philippine Inventory of Chemicals and Chemical Substances (PICCS)
REACH Reg.	REACH registered substances
TSCA	Toxic Substance Control Act

SECTION 16: Other information

Revision Date: 2023-08-01

Version number: GHS 1.0

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
DGR	Dangerous Goods Regulations (see IATA/DGR).
EINECS	European Inventory of Existing Commercial Chemical Substances.
ELINCS	European List of Notified Chemical Substances.
IATA	International Air Transport Association.
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA).
IMDG	International Maritime Dangerous Goods Code.
LC50	Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval.
LD50	Lethal Dose 50 %: the LD50 corresponds to the dose of a tested substance causing 50 % lethality during a specified time interval.
NLP	No-Longer Polymer.
PBT	Persistent, Bioaccumulative and Toxic.
vPvB	Very Persistent and very Bioaccumulative.

Key literature references and sources for data

Canada

Regulations Amending the Hazardous Products Regulations (GHS, Seventh Revised Edition).

UN Recommendations on the Transport of Dangerous Good. International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

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End of SDS