

Safety Data Sheet

(In accordance with COMMISSION REGULATION (EU) No 830/2015)

**102/104/105/106/110/115/201/202/203/211/210/301/401/502/601/
610/631 Cartridges**

Revision date: 2019/08/01

Version: 2019-08

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product number:
102/104/105/106/110/115/201/202/203/211/210/301/401/502/601/610/631 Cartridges

REACH registration number:

No registration number is given yet for this substance / substances in this mixture since the annual import quantity is less than one tonnage per annum or the transition period for its registration according to Article 23 of REACH has not yet expired.

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

Relevant identified uses: Laboratory Chemicals.

Use advised against: Not for consumer use.

Details of the supplier of the safety data sheet

Supplier: RBC Bioscience Corp.

3F, 3F.-1,2, No. 132, Ln. 235, Baoqiao Rd., Xindian Dist,
New Taipei City 23145, Taiwan (R.O.C.)

Emergency Response

Emergency/Phone Number: +886-2-8912-1200

E-mail: info@rbcbioscience.com

SECTION 2: Hazards identification

Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP]

Acute Tox. 4 *

Eye Irrit. 2

Skin Irrit. 2

CLP Label element

Labelling according to Regulation (EC) No 1272/2008 [CLP]

Hazard pictograms:



Signal Word: Warning

Hazard Statements

H302 Harmful if swallowed.
 H315 Causes skin irritation.
 H319 Causes serious eye irritation.
 H332 Harmful if inhaled.

Precautionary Statements

Prevention

P264 Wash hands thoroughly after handling.
 P270 Do not eat, drink or smoke when using this product.
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response

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.
 P304+P340 if inhaled: remove victim to fresh air and keep at rest in a position comfortable for breathing.
 P342+P311 if experiencing respiratory symptoms: Call a poison center or doctor/ physician.

Disposal

P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards:

Results of PBT and vPvB assessment

PBT: Not applicable.
 vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

Substance/Mixture: Mixture

Hazardous ingredients

Chemical Name	EC-No.	CAS-No.	Concentration (%)
Guanidine Hydrochloride	200-002-3	50-01-1	30~50
Ammonium Acetate	211-162-9	631-61-8	10~20

SECTION 4: First aid measures

General advice:

Move out of dangerous area. Show this material safety data sheet to the doctor in attendance.

If inhaled:

If unconscious place in recovery position and seek medical advice. Keep respiratory tract clear. If symptoms persist, call a physician.

In case of skin contact:

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.

In case of eye contact:

Small amounts splashed into eyes can cause irreversible tissue damage and blindness. In the case of contact with eyes rinse immediately with plenty of water and seek medical advice. Remove contact lenses. Protect unharmed eye.

If swallowed:

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If accidentally swallowed obtain immediate medical attention. Rinse mouth with water. Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed:

Symptoms: no information available.

Risks: Harmful if swallowed, in contact with skin irritation or if inhaled. Causes serious eye damage.

Note to Physician:

No information available.

SECTION 5: Firefighting measures

Suitable Extinguishing media:

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Specific hazards during firefighting:

Don't allow run-off from firefighting to enter drains or water courses. Exposure to decomposition products may be a hazard to health.

Hazardous combustion products:

Carbon oxides. Sulfur oxides.

Specific extinguishing methods:

In the event of fire and/or explosion don't breathe fumes. Use a water spray to cool fully closed containers.

Further information:

In the event of fire and/or explosion don't breathe fumes. Use a water spray to cool fully closed containers.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personal to safe areas. Avoid breathing dust/fume/gas/mist/vapors/spray. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

Environmental precautions:

Prevent product from entering drains. Prevent further leakage or spillage if safe to do so.

Methods and materials for containment and cleaning up:

Contain spillage, and then collect with non-combustible absorbent material. (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local/national regulations (see section 13.). Unsuitable cleaning agents: sodium hypochlorite.

Reference to other sections

See section 8 for more information.

SECTION 7: Handling and storage

Precautions for safe handling

Avoid formation of aerosol. Don't breathe vapors/dust. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Provide sufficient air exchange and/or exhaust in work rooms. Open drum carefully as content may be under pressure. Dispose of rinse water in accordance with local and national regulations. Persons susceptible to skin sensitization problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used. To prevent leaks or spillages from spreading, provide a suitable liquid retention system.

Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers:

No smoking. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Electrical



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installations/working materials must comply with the technological safety standards.

Advice on common storage:

Don't store together with oxidizing and self-ignition products.

Other data:

No decomposition if stored and applies as directed.

Specific end use(s)

Laboratory chemicals.

SECTION 8: Exposure controls/personal protection

Components with workplace control parameters

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

Personal protective equipment

Respiratory protection:

In the case of vapor formation use a respirator with an approved filter.

Hand protection remarks:

The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact)

Material:

Protective gloves

Eye protection:

Tightly fitting safety goggles. Wear face-shield and protective suit for abnormal processing problems. Don't wear contact lenses. Ensure that eyewash stations and safety showers are close to the workstation location.

Skin and body protection:

Choose body protection according to the amount and concentration of the dangerous substance at the work place. Acid-resistant protective clothing. Footwear protecting against chemicals. Workers should wear antistatic footwear.

Hygiene measures:

Keep away from food and drink. Wash hands before breaks and at the end of workday. Ensure adequate ventilation, especially in confined areas. Avoid contact with the skin and the eyes. When using do not eat, drink or smoke.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance: liquid

Color: No data available.

Odor: No data available.

Odor Threshold: No data available.

pH: No data available.

Melting point/range: No data available.

Boiling point/range: No data available.

Flash point: No data available.

Evaporation rate: No data available.

Burning rate: No data available.

Upper explosion limit: No data available.

Lower explosion limit: No data available.

Vapor pressure: No data available.

Relative vapor density: No data available.



Relative density: No data available.
Density: No data available.
Solubility: No data available.
Water solubility: No data available.
Solubility in other solvents: No data available.
Partition coefficient n-octanol/water: No data available.
Auto ignition temperature: No data available.
Thermal decomposition: No data available.
Viscosity: No data available.
Viscosity, dynamic: No data available.
Viscosity, kinematic: No data available.
Explosive properties: No data available.
Oxidizing properties: No data available.

SECTION 10: Stability and reactivity

Reactivity: No decomposition if stored and applied as directed.
Chemical stability: No decomposition if stored and applied as directed.
Possibility of hazardous reactions: Stable under recommended storage conditions.
Conditions to avoid: Heat, Flames and sparks.
Incompatible materials: No data available.
Hazardous decomposition products: No decomposition if stored and applied as directed.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Harmful if swallowed, in contact with skin or if inhaled.

Product:

Acute oral toxicity: No data available.
Acute inhalation toxicity: No data available.
Acute dermal toxicity: No data available.

Components

Guanidine hydrochloride

Acute oral toxicity:
LD50 Oral(Rat): 475 mg/kg. LD50 dermal(rabbit): >2000mg/kg
Acute inhalation toxicity:
LC50 (Rat, male and female): 5.3mg/l, Exposure time: 4h, Test atmosphere: dust/mist.

Ammonium acetate

Acute toxicity: LD50 Oral - No data available.
Acute inhalation toxicity: LC50 Inhalation - No data available.

Skin corrosion/irritation

Product:

Remarks: May cause skin irritation.

Components

Guanidine hydrochloride/ Ammonium acetate

Irritating to skin.



Serious eye damage/eye irritation

Product:

Remarks: May cause irreversible eye damage.

Components

Guanidine hydrochloride/ Ammonium acetate

Irritating to eyes.

Respiratory or skin sensitization

Product

Remarks: May cause sensitization by inhalation and skin contact.

Germ Cell mutagenicity

No data available.

Carcinogenicity

No data available.

Reproductive toxicity

No data available.

STOT-single exposure

No data available.

STOT-repeated exposure

No data available.

Aspiration toxicity

No data available.

Further information

Product

Remarks:

Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

Solvents may degrease the skin.

SECTION 12: Ecological information

Eco toxicity

Product

Toxicity to fish: No data available.

Toxicity to algae: No data available.

Toxicity to bacteria: No data available.

Components

Guanidine hydrochloride

Toxicity to fish: LC50 (Leuciscus idus): 1758 mg/L, Exposure time: 48h

Microtox: EC50 (Pseudomonas putida): 88.7 mg/L, Exposure time: 18 h

Ammonium acetate

Toxicity to fish: LC50 (Cyprinidae): 43 mg/L, Exposure time: 96h

Persistence and degradability

Components

Guanidine hydrochloride

Biodegradability: Method: OECD Test Guideline 301C

Remarks:

According to the results of tests of biodegradability. This product is not readily biodegradable.

Bio accumulative potential

Product

Bio accumulation: No data available.

Partition coefficient n-octanol/water: No data available.

Components

Guanidine hydrochloride

Partition coefficient n-octanol/water: log Pow: ca.-1.7 (20°C)

Ammonium acetate

Partition coefficient n-octanol/water: log Pow: ca.-2.79 (20°C)

Mobility in soil

No data available.

Results of PBT and vPvB assessment

No information available.

Other adverse effects

No data available.

SECTION 13: Disposal considerations

Waste treatment methods

Product

The product should not be allowed to enter drains, water courses or the soil. Send to a licensed wastes management company. Dispose of as hazardous waste in compliance with local and national regulations. Dispose of contents/container in accordance with local regulation.

Contaminated packaging

Empty remaining contents. Dispose of as unused product. Don't re-use empty containers. Don't burn, or use a cutting torch on, the empty drum.

SECTION 14: Transport information

UN number: None

UN proper shipping name: N/A

Transport hazard class(es): None

Packing group, if applicable: None

Environmental hazards (e.g.: Marine pollutant (Yes/No)): No

Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): N/A

Special precautions which a user needs to be aware of, or needs to comply with, in connection with the transport or conveyance within or outside their premises: This product is not classified as hazardous according to DOT, IMDG, and IATA regulations.

Special precaution for user:

For personal protection see section 8.

SECTION 15: Regulatory information

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

Substances of Very High Concern

None

Restricted substances under EC 1907/2006, Annex XVII

None

Substances listed under Annex I of Regulation (EC) No 689/2008

None

Restricted substances under Annex V of Regulation (EC) No 689/2008

None

Substances under Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC

None

German Water hazard classes (Wassergefährdungsklassen)

Not classified.

Other International Inventories

No information available.

Chemical Safety Assessment

No Chemical safety assessment has been carried out.

SECTION 16: Other information

Update according to Commission Regulation (EU) No 830/2015

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.

The information in this SDS does not constitute a warranty, expressed or implied, including and implied warranty of merchantability or fitness for any particular purpose.