


SAFETY DATA SHEET

AcidipHy Granular

Section 1. Identification

- GHS product identifier** : AcidipHy Granular
- Other means of identification** : ACIDG
- Product use** : Professional use.
- Supplier's details** : AQUA-AID, Inc.
 dba AQUA-AID Solutions
 5484 S. Old Carriage Road
 Rocky Mount, NC 27803, USA
- e-mail address of person responsible for this SDS** : info@aquaaid.com
- Emergency telephone number (with hours of operation)** : +1-800-394-1551 (M-F 8:00 AM - 5:00 PM EST)

Section 2. Hazards identification

- OSHA/HCS status** : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
- Classification of the substance or mixture** : SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
- GHS label elements**
- Hazard pictograms** : 
- Signal word** : Warning
- Hazard statements** : H335 May cause respiratory irritation.
- Precautionary statements**
- Prevention** : P261 Avoid breathing dust.
 P271 Use only outdoors or in a well-ventilated area.
- Response** : P304 + P340 IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing.
 P312 Call a POISON CENTER or doctor/physician if you feel unwell.
- Storage** : Not applicable.
- Disposal** : Not applicable.
- Hazards not otherwise classified** : None known.

Section 3. Composition/information on ingredients

- Substance/mixture** : Mixture
- Other means of identification** : ACIDG
- CAS number/other identifiers**
- CAS number** : Not applicable.
- Product code** : Not available.

Section 3. Composition/information on ingredients

Ingredient name	%	CAS number
crystalline silica	≥3 - <5	14808-60-7
hydrochloric acid	≥1 - <3	7647-01-0
phosphoric acid	≥1 - <3	7664-38-2
oxalic acid	≥0.1 - <0.5	144-62-7

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
- Ingestion** : Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Give plenty of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : No known significant effects or critical hazards.
- Inhalation** : May cause respiratory irritation.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Eye contact** : No specific data.
- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
- Skin contact** : No specific data.
- Ingestion** : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first aiders** : No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media : None.

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA).

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material into waterways, drains, and sewers.

Methods and materials for containment and cleaning up

Small spill : Move containers from spill area. Absorb spillage to prevent material damage. Avoid dust generation. Vacuum dust with equipment fitted with a HEPA filter. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

Large spill : Move containers from spill area. Absorb spillage to prevent material damage. Prevent entry into sewers and water courses. Avoid dust generation. Vacuum dust with equipment fitted with a HEPA filter. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8).

Advice on general occupational hygiene : 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. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : 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.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

crystalline silica

OSHA PEL Z3 (United States, 2/2013).

TWA: 250 MPPCF / (%SiO₂+5) 8 hours.

Form: Respirable

TWA: 10 MG/M³ / (%SiO₂+2) 8 hours. Form:

Respirable

OSHA PEL 1989 (United States, 3/1989).

TWA: 0.1 mg/m³, (as quartz) 8 hours. Form:

Respirable dust

ACGIH TLV (United States, 3/2015).

TWA: 0.025 mg/m³ 8 hours. Form:

Respirable fraction

NIOSH REL (United States, 10/2013).

TWA: 0.05 mg/m³ 10 hours. Form: respirable dust

hydrochloric acid

ACGIH TLV (United States, 3/2015).

C: 2 ppm

OSHA PEL 1989 (United States, 3/1989).

CEIL: 5 ppm

CEIL: 7 mg/m³

NIOSH REL (United States, 10/2013).

CEIL: 5 ppm

CEIL: 7 mg/m³

OSHA PEL (United States, 2/2013).

CEIL: 5 ppm

CEIL: 7 mg/m³

phosphoric acid

ACGIH TLV (United States, 3/2015).

TWA: 1 mg/m³ 8 hours.

STEL: 3 mg/m³ 15 minutes.

OSHA PEL 1989 (United States, 3/1989).

TWA: 1 mg/m³ 8 hours.

STEL: 3 mg/m³ 15 minutes.

NIOSH REL (United States, 10/2013).

TWA: 1 mg/m³ 10 hours.

STEL: 3 mg/m³ 15 minutes.

OSHA PEL (United States, 2/2013).

TWA: 1 mg/m³ 8 hours.

oxalic acid

ACGIH TLV (United States, 3/2015).

TWA: 1 mg/m³ 8 hours.

STEL: 2 mg/m³ 15 minutes.

OSHA PEL 1989 (United States, 3/1989).

TWA: 1 mg/m³ 8 hours.

STEL: 2 mg/m³ 15 minutes.

NIOSH REL (United States, 10/2013).

TWA: 1 mg/m³ 10 hours.

STEL: 2 mg/m³ 15 minutes.

OSHA PEL (United States, 2/2013).

TWA: 1 mg/m³ 8 hours.

Appropriate engineering controls

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

Environmental exposure controls

: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Section 8. Exposure controls/personal protection

Individual protection measures

- Hygiene 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.
- Eye/face protection** : 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: safety glasses with side shields.
- Skin protection**
- Hand protection** : 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.
- 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.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Use a properly fitted, air-purifying or air-fed 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 working limits of the selected respirator.

Section 9. Physical and chemical properties

Appearance

- Physical state** : Solid. [Granular solid.]
- Color** : Tan.
- Odor** : Mild.
- Odor threshold** : Not available.
- pH** : 3 to 5
- Melting point** : Not available.
- Boiling point** : Not available.
- Flash point** : Not available.
- Evaporation rate** : Not available.
- Flammability (solid, gas)** : Not available.
- Lower and upper explosive (flammable) limits** : Not available.
- Vapor pressure** : Not available.
- Vapor density** : 1 [Air = 1]
- Relative density** : 0.648 g/cm³ (40.46 lb/ft³).
- Solubility** : Not available.
- Partition coefficient: n-octanol/water** : Not available.
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.
- Viscosity** : Not available.

Section 10. Stability and reactivity

- Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- Chemical stability** : The product is stable.
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- Conditions to avoid** : No specific data.
- Incompatible materials** : No specific data.
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Not available.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
hydrochloric acid	Eyes - Mild irritant	Rabbit	-	0.5 minutes 5 milligrams	-
	Eyes - Mild irritant	Rabbit	-	24 hours 4 Percent	-

Conclusion/Summary

Skin : Based on available data, the classification criteria are not met.

Eyes : Based on available data, the classification criteria are not met.

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
crystalline silica	-	1	Known to be a human carcinogen.
hydrochloric acid	-	3	-

Conclusion/Summary

This product contains up to 5% crystalline silica. The International Agency for Research on Cancer (IARC) has stated that there is sufficient evidence of carcinogenicity of crystalline silica to human beings. It was noted that carcinogenicity was not detected in all industrial circumstances studied. The NTP's Sixth Annual Report on Carcinogens includes respirable crystalline silica. The Hazard Communication Standard (29CFR 1910.1200) requires that any material containing over 0.1% of a substance reported as a carcinogen in an IARC monograph or the most recent NTP Annual Report on Carcinogens must be identified as a carcinogen. These identifications are for hazard communications only and do not serve as assessments of carcinogenic risk. Crystalline silica is known to cause silicosis. At dust levels below the recommended PEL exposure to the crystalline silica contained in this product should not present a health hazard.

Section 11. Toxicological information

Inhalation of excessive concentrations of any dust, including this material, may lead to lung injury. As formulated, this product is not expected to form appreciable respirable crystalline silica dust from use or attrition. Because application and exposure data indicate exposure to respirable quartz in the normal use of the ingredient within this product which contains crystalline silica, is well below the OSHA Permissible Exposure Limit (PEL) and ACGIH Threshold Limit Value (TLV). Adverse effects would not be expected from normal use of this product.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
AcidipHy Granular	Category 3	Not applicable.	Respiratory tract irritation.
hydrochloric acid	Category 3	Not applicable.	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.
Inhalation : May cause respiratory irritation.
Skin contact : No known significant effects or critical hazards.
Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.
Inhalation : Adverse symptoms may include the following:
 respiratory tract irritation
 coughing
Skin contact : No specific data.
Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Potential chronic health effects

Not available.

Section 11. Toxicological information

General	: No known significant effects or critical hazards.
Carcinogenicity	: No known significant effects or critical hazards.
Mutagenicity	: No known significant effects or critical hazards.
Teratogenicity	: No known significant effects or critical hazards.
Developmental effects	: No known significant effects or critical hazards.
Fertility effects	: No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
hydrochloric acid	Acute LC50 240000 µg/l Marine water	Crustaceans - Carcinus maenas - Adult	48 hours
	Acute LC50 282 ppm Fresh water	Fish - Gambusia affinis - Adult	96 hours

Conclusion/Summary : Based on available data, the classification criteria are not met.

Persistence and degradability

Not available.

Bioaccumulative potential

Not available.

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times 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 emptied 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.

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	ADR/RID	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.	Not regulated.	Not regulated.

Section 14. Transport information

UN proper shipping name	-	-	-	-	-	-
Transport hazard class(es)	-	-	-	-	-	-
Label						
Packing group	-	-	-	-	-	-
Environmental hazards	No.	No.	No.	No.	Marine Pollutant: No	No.
Additional information	-	-	-	-	-	-

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to Annex II of MARPOL and the IBC Code : Not available.

Section 15. Regulatory information

U.S. Federal regulations : **TSCA 8(a) CDR Exempt/Partial exemption:** Not determined
United States inventory (TSCA 8b): All components are listed or exempted.
Clean Water Act (CWA) 311: Hydrochloric acid; Phosphoric acid
Clean Air Act (CAA) 112 regulated toxic substances: Hydrochloric acid

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Listed

SARA 302/304

Composition/information on ingredients

Name	%	EHS	SARA 302 TPQ		SARA 304 RQ	
			(lbs)	(gallons)	(lbs)	(gallons)
hydrochloric acid	≥1 - <3	Yes.	500	-	5000	-

SARA 304 RQ : 400000 lbs / 181600 kg

SARA 311/312

Classification : Immediate (acute) health hazard
 Delayed (chronic) health hazard

Section 15. Regulatory information

Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
crystalline silica	≥3 - <5	No.	No.	No.	No.	Yes.
hydrochloric acid	≥1 - <3	No.	No.	No.	Yes.	No.
phosphoric acid	≥1 - <3	No.	No.	No.	Yes.	No.

State regulations

- Massachusetts** : The following components are listed: Silica; Crystalline; Quartz; Hydrochloric acid; Phosphoric acid.
- New York** : The following components are listed: Hydrochloric acid; Phosphoric acid.
- New Jersey** : The following components are listed: Silica, Quartz; Quartz (SiO₂); Hydrochloric acid; Phosphoric acid.
- Pennsylvania** : The following components are listed: Quartz (SiO₂); Hydrochloric acid; Phosphoric acid.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol (Annexes A, B, C, E)

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Inform Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

International lists

National inventory

- Australia** : All components are listed or exempted.
- Canada** : All components are listed or exempted.
- China** : All components are listed or exempted.
- Europe** : Not determined.
- Japan** : **Japan inventory (ENCS)**: Not determined.
Japan inventory (ISHL): Not determined.
- Malaysia** : Not determined.
- New Zealand** : Not determined.
- Philippines** : Not determined.
- Republic of Korea** : All components are listed or exempted.
- Taiwan** : All components are listed or exempted.
- Turkey** : Not determined.

Section 16. Other information

Procedure used to derive the classification

Classification	Justification
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3	Expert judgment

History

Date of printing	: 11/30/2018
Date of issue/Date of revision	: 11/30/2018
Date of previous issue	: 03/18/2016
Version	: 1.1

Key to abbreviations

: ATE = Acute Toxicity Estimate
: BCF = Bioconcentration Factor
: GHS = Globally Harmonized System of Classification and Labelling of Chemicals
: IATA = International Air Transport Association
: IBC = Intermediate Bulk Container
: IMDG = International Maritime Dangerous Goods
: LogPow = logarithm of the octanol/water partition coefficient
: MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
: UN = United Nations

References

: Not available.

☑ Indicates information that has changed from previously issued version.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.