

Safety Data Sheet

according to 29CFR1910/1200 and GHS Rev. 3

Effective date : 01.12.2015

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Starch Acid Indicator Powder

SECTION 1: Identification of the substance/mixture and of the supplier

Product name: Starch Acid Indicator Powder

Manufacturer/Supplier Trade name:

Manufacturer/Supplier Article number: 199-A – 199-E

Recommended uses of the product and restrictions on use:

Manufacturer Details:

AquaPhoenix Scientific, Inc
9 Barnhart Drive, Hanover, PA 17331
(717) 632-1291

Supplier Details:

U.S. Water Services
12270 43rd Street NE, St. Michael, MN 55376
(866) 663-7633

Emergency telephone number:

U.S. Water Services Emergency Telephone No.: (800) 255-3924

SECTION 2: Hazards identification

Classification of the substance or mixture:



Irritant

Skin irritation, category 2
Eye irritation, category 2A



Environmentally Damaging

Chronic hazards to the aquatic environment, category 3

May form combustible dust concentrations in air.

Skin irrit. 2.

Eye irrit. 2A.

Aquatic ChrTox. 3.

Signal word: Warning

Hazard statements:

Causes skin irritation.

Causes serious eye irritation.

Harmful to aquatic life with long lasting effects.

Precautionary statements:

Wash ... thoroughly after handling.

Avoid release to the environment.

Wear protective gloves/protective clothing/eye protection/face protection.

IF ON SKIN: Wash with soap and water.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do.

Continue rinsing.

Specific treatment (see ... on this label).

If skin irritation occurs: Get medical advice/attention.

If eye irritation persists get medical advice/attention.

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Take off contaminated clothing and wash before reuse.

Dispose of contents/container to

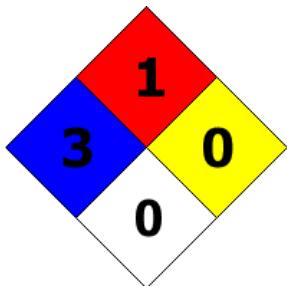
Other Non-GHS Classification:

WHMIS



E

NFPA/HMIS



NFPA SCALE (0-4)

Health	3
Flammability	1
Physical Hazard	0
Personal Protection	0

HMIS RATINGS (0-4)

SECTION 3: Composition/information on ingredients

Ingredients:

CAS 9005-25-8	Starch, Potato, Reagent Grade	20 %
CAS 5329-14-6	Sulphamic acid	80 %
Percentages are by weight		

SECTION 4: First aid measures

Description of first aid measures

After inhalation:

Move exposed to fresh air. Give artificial respiration if necessary. If breathing is difficult give oxygen. Consult a physician.

After skin contact:

Wash hands and exposed skin with soap and plenty of water. Consult a physician.

After eye contact:

Flush eyes with water as a precaution. Rinse or flush exposed eye gently using water for 15-20 minutes. Consult a physician.

After swallowing:

Never give anything by mouth to an unconscious person. Rinse mouth with water. DO NOT induce vomiting. Consult a physician.

Most important symptoms and effects, both acute and delayed:

Irritation. Headache. Shortness of breath. Nausea.

Indication of any immediate medical attention and special treatment needed:

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If seeking medical attention provide SDS document to physician. Physician should treat symptomatically.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing agents:

Use water, dry chemical, chemical foam, carbon dioxide, or alcohol-resistant foam. Do not inhale gases, fumes, dust, mist, vapor, and aerosols.

Unsuitable extinguishing agents: None

Special hazards arising from the substance or mixture:

Carbon oxides may be released. Nitrogen oxides. Sulphur oxides.

Advice for firefighters:

Protective equipment:

Wear protective eyeware, gloves, and clothing. Refer to Section 8.

Additional information (precautions):

Avoid generating dust. Avoid breathing vapors, dust, mist, or gas. Further processing of solid materials may result in the formation of combustible dusts.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Ensure adequate ventilation. Ensure that dust-handling systems (exhaust ducts, dust collectors, vessels, and processing equipment) are designed to prevent the escape of dust into the work area. Avoid contact with skin, eyes and clothing.

Environmental precautions:

Prevent from reaching drains, sewer, or waterway. Prevent further leakage or spillage. Should not be released into environment.

Methods and material for containment and cleaning up:

Sweep up and containerize for disposal. Avoid generating dust. Always obey local regulations. Sweep up and shovel. Keep in suitable closed containers for disposal. Follow proper disposal methods. Refer to Section 13.

Reference to other sections: None

SECTION 7: Handling and storage

Precautions for safe handling:

Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs. Provide appropriate exhaust ventilation at places where dust is formed. For precautions refer to Section 2. Avoid contact with skin, eyes, and clothing. Avoid dispersal of dust in the air. Do not clear dust on surfaces with compressed air. Wash hands after handling.

Conditions for safe storage, including any incompatibilities:

Keep container tightly closed in a cool, dry, and well-ventilated area. Store away from incompatible materials. Refer to Sections 5 and 10. Store product and empty container away from heat and sources of ignition. Keep container tightly closed in a cool, dry, and well-ventilated area. Store in inert atmosphere. Protect from freezing and physical damage. Store as corrosive.

SECTION 8: Exposure controls/personal protection

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Control Parameters:

9005-25-8, High-polymeric carbohydrate material, 10 mg/m³ USA. ACGIH Threshold Limit Values (TLV).

9005-25-8, High-polymeric carbohydrate material, 15 mg/m³ USA.

Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants.

9005-25-8, High-polymeric carbohydrate material, 5 mg/m³ USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants.

9005-25-8, High-polymeric carbohydrate material, 5 mg/m³ USA. NIOSH Recommended Exposure Limits.

9005-25-8, High-polymeric carbohydrate material, 10 mg/m³ USA. NIOSH Recommended Exposure Limits.

Appropriate Engineering controls:

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor and mists below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling.

Respiratory protection:

Normal ventilation is adequate. Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. When necessary use NIOSH approved breathing equipment.

Protection of skin:

Select glove material impermeable and resistant to the substance. Select glove material based on rates of diffusion and degradation. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wear protective clothing.

Eye protection:

Wear equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses or goggles.

General hygienic measures:

Perform routine housekeeping to prevent dust generation. Do not eat, drink, smoke, or use personal products when handling chemical substances. Wash hands before breaks and immediately after handling the product.

SECTION 9: Physical and chemical properties

Appearance (physical state, color):	White powder.	Explosion limit lower: Explosion limit upper:	Not Determined Not Determined
Odor:	Odorless	Vapor pressure at 20°C:	Not Determined
Odor threshold:	Not Determined	Vapor density:	Not Determined
pH-value:	Not Determined	Relative density:	Approx 2
Melting/Freezing point:	Decomposes at 205°C	Solubilities:	Soluble in water: 213 g/l at 20°C.
Boiling point/Boiling range:	Not Determined	Partition coefficient (n-octanol/water):	Not Determined
Flash point (closed cup):	Not Determined	Auto/Self-ignition temperature:	Not Determined

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Evaporation rate:	Not Determined	Decomposition temperature:	Not Determined
Flammability (solid, gaseous):	Not Determined	Viscosity:	a. Kinematic: Not Determined b. Dynamic: Not Determined
Density at 20°C:	Not Determined		

SECTION 10: Stability and reactivity

Reactivity:

None under normal processing.

Chemical stability:

Stable under normal conditions.

Possible hazardous reactions:

Conditions to avoid:

Dust generation. Incompatible materials.

Incompatible materials:

Strong oxidizing agents. Strong bases. Nitric acid. Chlorine.

Hazardous decomposition products:

Ammonia. Oxides of sulfur. Nitrogen. Carbon.

SECTION 11: Toxicological information

Acute Toxicity:

Oral:

9005-25-8 LD50 Intraperitoneal - Mouse - 6,600 mg/kg

5329-14-6 LD50 Oral - rat - 3,160 mg/kg

Chronic Toxicity:

Corrosion Irritation:

Dermal:

9005-25-8 Skin - Human Result: Mild skin irritation - 3 h

5329-14-6 Skin - Human Result: Mild skin irritation

Ocular:

5329-14-6 Eyes - rabbit Result: Moderate eye irritation

Sensitization:

Numerical Measures:

Carcinogenicity:

Mutagenicity:

Reproductive Toxicity:

SECTION 12: Ecological information

Ecotoxicity:

Toxicity to fish static test LC50 - Pimephales promelas (fathead minnow) - 70.3 mg/l - 96 h (OECD Test Guideline 203): 5329-14-6

Persistence and degradability:

Bioaccumulative potential:

Mobility in soil:

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Other adverse effects: No additional information.

SECTION 13: Disposal considerations

Waste disposal recommendations:

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations. Ensure complete and accurate classification.

SECTION 14: Transport information

US DOT

UN Number:

ADR, ADN, DOT, IMDG, IATA

3261

Limited Quantity Exception:

None

Bulk:

RQ (if applicable): None

Proper shipping Name: Corrosive Solid, Acidic, Organic, N.O.S., (Sulfamic Acid).

Hazard Class: 8

Packing Group: III.

Marine Pollutant (if applicable): No additional information.

Comments: None

Non Bulk:

RQ (if applicable): None

Proper shipping Name: Corrosive Solid, Acidic, Organic, N.O.S., (Sulfamic Acid).

Hazard Class: 8

Packing Group: III.

Marine Pollutant (if applicable): No additional information.

Comments: None



SECTION 15: Regulatory information

United States (USA)

SARA Section 311/312 (Specific toxic chemical listings):

Acute

SARA Section 313 (Specific toxic chemical listings):

None of the ingredients are listed.

RCRA (hazardous waste code):

None of the ingredients are listed.

TSCA (Toxic Substances Control Act):

All ingredients are listed.

CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act):

None of the ingredients are listed.

Proposition 65 (California):

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Chemicals known to cause cancer:

None of the ingredients are listed.

Chemicals known to cause reproductive toxicity for females:

None of the ingredients are listed.

Chemicals known to cause reproductive toxicity for males:

None of the ingredients are listed.

Chemicals known to cause developmental toxicity:

None of the ingredients are listed.

Canada

Canadian Domestic Substances List (DSL):

All ingredients are listed.

Canadian NPRI Ingredient Disclosure list (limit 0.1%):

None of the ingredients are listed.

Canadian NPRI Ingredient Disclosure list (limit 1%):

None of the ingredients are listed.

SECTION 16: Other information

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations. The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations of this material.

GHS Full Text Phrases: None

Abbreviations and Acronyms:

IMDG International Maritime Code for Dangerous Goods.

HMIS Hazardous Materials Identification System (USA).

WHMIS Workplace Hazardous Materials Information System (Canada).

DNEL Derived No-Effect Level (REACH).

PNEC Predicted No-Effect Concentration (REACH).

DOT US Department of Transportation.

IATA International Air Transportation Association.

GHS Globally Harmonized System of Classification and Labelling of Chemicals.

ACGIH American Conference of Governmental Industrial Hygienists.

CAS Chemical Abstracts Service (division of the American Chemical Society).

NFPA National Fire Protection Association (USA).

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