

SAFETY DATA SHEET

Issue Date 14-Dec-2020 **Revision Date** 26-Jan-2024 **Version** 3.4 **Page** 1 / 16

1. IDENTIFICATION

Product identifier

Product Name Amino Acid Reagent for Phosphate and Silica

Other means of identification

Product Code(s) 193432

Safety data sheet number M00295

Recommended use of the chemical and restrictions on use

Recommended Use Water Analysis. Silica determination. Phosphate determination.

Uses advised against Consumer use.

Restrictions on use For Laboratory Use Only.

Details of the supplier of the safety data sheet

Manufacturer Address

Hach Company, P.O.Box 389, Loveland, CO 80539, USA, +1(970) 669-3050

Emergency telephone number

+1(303) 623-5716 - 24 Hour Service

2. HAZARDS IDENTIFICATION

Classification

Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

| Serious eye damage/eye irritation | Category 1 |
|-----------------------------------|-------------|
| Respiratory sensitization | Category 1 |
| Reproductive toxicity | Category 1B |
| Chronic aquatic toxicity | Category 3 |

Hazards not otherwise classified (HNOC)

Not applicable

Label elements

Signal word

Danger

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Hazard statements

H318 - Causes serious eye damage

H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled

H360 - May damage fertility or the unborn child

H412 - Harmful to aquatic life with long lasting effects

Precautionary statements

P280 - Wear protective gloves, protective clothing, eye protection, and face protection

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 or doctor/physician

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray

P285 - In case of inadequate ventilation wear respiratory protection

P304 + P341 - IF INHALED: If breathing is difficult, 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

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

P201 - Obtain special instructions before use

P308 + P313 - IF exposed or concerned: Get medical advice/attention

P405 - Store locked up

P273 - Avoid release to the environment

Other Hazards Known

May be harmful if swallowed May be harmful in contact with skin Causes mild skin irritation Harmful to aquatic life

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Not applicable

Mixture

Chemical Family

Mixture.

Chemical nature aqueous solution.

Percent ranges are used where confidential product information is applicable.

| Chemical name | CAS No | Percent Range | HMRIC # |
|-----------------------|-----------|------------------|---------|
| N,N-Dimethylformamide | 68-12-2 | 20 - 30% | - |
| Sodium metabisulfite | 7681-57-4 | 3 - 7% | - |
| Sodium sulfite | 7757-83-7 | 1 - 5% | - |

4. FIRST AID MEASURES

Description of first aid measures

General advice Immediate medical attention is required. Show this safety data sheet to the doctor in

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attendance.

Inhalation Remove to fresh air. May cause allergic respiratory reaction. If breathing has stopped, give

artificial respiration. Get medical attention immediately. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Get immediate medical advice/attention.

Eye contact Get immediate medical advice/attention. Rinse immediately with plenty of water, also under

the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do.

Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area.

Skin contact Wash off immediately with soap and plenty of water for at least 15 minutes. May cause an

allergic skin reaction. In the case of skin irritation or allergic reactions see a physician.

Ingestion Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth

to an unconscious person. Do NOT induce vomiting. May produce an allergic reaction. Get

immediate medical advice/attention.

Self-protection of the first aider

Avoid contact with skin, eyes or clothing. Ensure that medical personnel are aware of the

material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid direct contact with skin. Use barrier to give mouth-to-mouth

resuscitation.

Most important symptoms and effects, both acute and delayed

Symptoms Burning sensation. May cause allergy or asthma symptoms or breathing difficulties if

inhaled. Coughing and/ or wheezing. Itching. Rashes. Hives.

Indication of any immediate medical attention and special treatment needed

Note to physicians May cause sensitization in susceptible persons. Treat symptomatically.

5. FIRE-FIGHTING MEASURES

surrounding environment.

Unsuitable Extinguishing Media Caution: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the

chemical

Product is or contains a sensitizer. May cause sensitization by inhalation and skin contact.

Hazardous combustion products Sulfur oxides. Dimethylamine. Nitrogen oxides. Carbon monoxide, Carbon dioxide.

Special protective equipment for

fire-fighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

Use personal protection equipment.

6. ACCIDENTAL RELEASE MEASURES

U.S. NoticeOnly persons properly qualified to respond to an emergency involving hazardous

substances may respond to a spill according to federal regulations (OSHA 29 CFR

1910.120(a)(v)) and per your company's emergency response plan and

guidelines/procedures. See Section 13, Special Instructions for disposal assistance. Outside of the US, only persons properly qualified according to state or local regulations should

respond to a spill involving chemicals.

Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with skin, eyes or clothing. Use personal protective equipment as required.

Ensure adequate ventilation. Evacuate personnel to safe areas. Keep people away from

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and upwind of spill/leak.

Other Information Refer to protective measures listed in Sections 7 and 8.

Environmental precautions

Environmental precautions Prevent further leakage or spillage if safe to do so.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, Methods for cleaning up

sawdust). Take up mechanically, placing in appropriate containers for disposal.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

Reference to other sections See section 8 for more information. See section 13 for more information.

7. HANDLING AND STORAGE

Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with Advice on safe handling

skin, eves or clothing. Do not eat, drink or smoke when using this product. Ensure adequate

ventilation. Provide extract ventilation to points where emissions occur. In case of

insufficient ventilation, wear suitable respiratory equipment. Remove contaminated clothing

and shoes.

Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up. **Storage Conditions**

Keep out of the reach of children.

Flammability class Class IIIB

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

| Chemical name | ACGIH TLV | OSHA PEL | NIOSH |
|-----------------------|--------------------------|-------------------------------------|---------------------------|
| N,N-Dimethylformamide | TWA: 5 ppm | TWA: 10 ppm | IDLH: 500 ppm |
| CAS#: 68-12-2 | S* | TWA: 30 mg/m ³ | TWA: 10 ppm |
| | | (vacated) TWA: 10 ppm | TWA: 30 mg/m ³ |
| | | (vacated) TWA: 30 mg/m ³ | |
| | | (vacated) SKN* | |
| | | * | |
| Sodium metabisulfite | TWA: 5 mg/m ³ | (vacated) TWA: 5 mg/m ³ | TWA: 5 mg/m ³ |
| CAS#: 7681-57-4 | | | |

Appropriate engineering controls

Showers **Engineering Controls**

Eyewash stations

Ventilation systems.

Individual protection measures, such as personal protective equipment

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Respiratory protectionNo protective equipment is needed under normal use conditions. If exposure limits are

exceeded or irritation is experienced, ventilation and evacuation may be required. Ensure adequate ventilation. Where reasonably practicable this should be achieved by the use of

local exhaust ventilation and good general extraction.

Hand Protection Wear suitable gloves.

Eye/face protection Tight sealing safety goggles.

Skin and body protection Wear suitable protective clothing.

General Hygiene Considerations Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do

not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and immediately

after handling the product.

Environmental exposure controls Local authorities should be advised if significant spillages cannot be contained. Do not allow

into any sewer, on the ground or into any body of water.

Thermal hazards None under normal processing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state

Liquid

Appearance aqueous solution
Odor Amine

Color light brown/yellow **Odor threshold** No data available

Property Values Remarks • Method

Molecular weight No data available

pH 5.8

Melting point / freezing point \sim -21 °C / -5.8 °F

Initial boiling point and boiling range 102 °C / 215.6 °F

Evaporation rate 0.59 (water = 1)

Vapor pressure 21.602 mm Hg $\,/\,$ 2.88 kPa $\,$ at $\,$ 25 °C $\,/\,$ 77 °F

Relative vapor density 0.62

Specific gravity - VALUE 1 1.065

Partition coefficient Not applicable

Soil Organic Carbon-Water Partition

Coefficient

Not applicable

Autoignition temperature No data available

Decomposition temperature No data available

Dynamic viscosity No data available

Kinematic viscosity

No data available

Solubility(ies)

Water solubility

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| Water solubility classification | Water solubility | Water Solubility Temperature |
|---------------------------------|------------------|------------------------------|
| Soluble | > 1000 mg/L | 25 °C / 77 °F |

Solubility in other solvents

| Chemical Name | Solubility classification | <u>Solubility</u> | Solubility Temperature_ |
|---------------|---------------------------|-------------------|--------------------------|
| None reported | No information available | No data available | No information available |

Other information

Metal Corrosivity

Steel Corrosion Rate No data available **Aluminum Corrosion Rate** No data available

Volatile Organic Compounds (VOC) Content

| Chemical name | CAS No | Volatile organic compounds (VOC) content | CAA (Clean Air Act) |
|-----------------------|-----------|--|---------------------|
| N,N-Dimethylformamide | 68-12-2 | No data available | X |
| Sodium metabisulfite | 7681-57-4 | Not applicable | - |
| Sodium sulfite | 7757-83-7 | No data available | - |

Explosive properties

No data available **Upper explosion limit** Lower explosion limit No data available

Flammable properties

> 100 °C / 212 °F Flash point

Method CC (closed cup)

Flammability Limit in Air

Upper flammability limit: No data available Lower flammability limit: No data available

Oxidizing properties No data available.

Bulk density No data available

10. STABILITY AND REACTIVITY

Reactivity

Not applicable.

<u>Chemical stability</u>
Stable under normal conditions.

Explosion data

Sensitivity to Mechanical Impact None. Sensitivity to Static Discharge None.

Possibility of hazardous reactions

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None under normal processing.

Hazardous polymerization

None under normal processing.

Conditions to avoid

None known based on information supplied.

Incompatible materials

Strong acids. Strong bases. Strong oxidizing agents.

Hazardous decomposition products

Nitrogen oxides. Carbon dioxide. Carbon monoxide. Sulfur oxides.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation May cause sensitization in susceptible persons.

Eye contact Severely irritating to eyes. Causes serious eye damage. May cause burns. May cause

irreversible damage to eyes.

Skin contact May cause irritation. Repeated or prolonged skin contact may cause allergic reactions with

susceptible persons.

Ingestion Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. May cause

additional affects as listed under "Inhalation".

Symptoms Redness. Burning. May cause blindness. Symptoms of allergic reaction may include rash,

itching, swelling, trouble breathing, tingling of the hands and feet, dizziness,

lightheadedness, chest pain, muscle pain, or flushing. Coughing and/ or wheezing.

Acute toxicity

Based on available data, the classification criteria are not met

Mixture

Test data reported below.

Oral Exposure Route

Key literature references and sources for data Outside testing

Ingredient Acute Toxicity Data

Test data reported below.

Oral Exposure Route

| Chemical name | Endpoint type | Reported dose | Exposure time | Toxicological effects | Key literature references and sources for data |
|--|-------------------------|---------------|---------------|-----------------------|--|
| N,N-Dimethylformami de (20 - 30%) CAS#: 68-12-2 | | 2800 mg/kg | None reported | None reported | IUCLID |
| Sodium metabisulfite (3 - 7%) CAS#: 7681-57-4 | Rat LD ₅₀ | 500 mg/kg | None reported | None reported | No information available |
| Sodium sulfite (1 - 5%) | Rat LD ₅₀ | 3560 mg/kg | None reported | None reported | GESTIS |

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| CAS#: 7757-83-7 | | | | |
|-----------------|--|--|--|--|
|-----------------|--|--|--|--|

Dermal Exposure Route

| Chemical name | Endpoint type | Reported dose | Exposure time | Toxicological effects | Key literature references and sources for data |
|---|-------------------------|---------------|---------------|-----------------------|--|
| N,N-Dimethylformami de | Rat LD ₅₀ | 1100 mg/kg | None reported | None reported | IUCLID |
| (20 - 30%) CAS#: 68-12-2 | 2000 | | | | |
| Sodium metabisulfite (3 - 7%) CAS#: 7681-57-4 | Rat LD₅o | > 2000 mg/kg | None reported | None reported | LOLI |
| Sodium sulfite (1 - 5%) CAS#: 7757-83-7 | Rat LD ₅₀ | 2000 mg/kg | None reported | None reported | EPA |

Inhalation (Dust/Mist) Exposure Route

| Chemical name | Endpoint type | Reported dose | Exposure time | Toxicological effects | Key literature references and sources for data |
|----------------------|------------------|---------------|---------------|-----------------------|--|
| N,N-Dimethylformami | Rat | > 5.9 mg/L | 4 hours | None reported | IUCLID |
| de | LC50 | | | | |
| (20 - 30%) | | | | | |
| CAS#: 68-12-2 | | | | | |
| Sodium metabisulfite | Rat | > 5.5 mg/L | 4 hours | None reported | RTECS |
| (3 - 7%) | LC ₅₀ | | | - | |
| CAS#: 7681-57-4 | | | | | |
| Sodium sulfite | Rat | 5.5 mg/L | 4 hours | None reported | ECHA |
| (1 - 5%) | LC50 | | | · | |
| CAS#: 7757-83-7 | | | | | |

Inhalation (Vapor) Exposure Route

Unknown Acute Toxicity

0.01% of the mixture consists of ingredient(s) of unknown toxicity.

Acute Toxicity Estimations (ATE)

The following values are calculated based on chapter 3.1 of the GHS document

| ATEmix (oral) | No information available | |
|-------------------------------|--------------------------|--|
| ATEmix (dermal) | 3,941.10 mg/kg | |
| ATEmix (inhalation-dust/mist) | 6.25 mg/l | |
| ATEmix (inhalation-vapor) | 45.30 mg/l | |
| ATEmix (inhalation-gas) | No information available | |

Skin corrosion/irritation

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

Mixture

No data available.

Ingredient Skin Corrosion/Irritation Data

Test data reported below.

| Chemical name Test method Species Reported Exposure time | Results Key literature references and sources for data |
|--|--|
|--|--|

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| N,N-Dimethylformami | | Human | 1000 mg | None reported | Mild skin irritant | RTECS |
|---------------------|-----------------|--------|---------|---------------|--------------------|-------|
| de | Test | | | | | |
| (20 - 30%) | | | | | | |
| CAS#: 68-12-2 | | | | | | |
| Sodium sulfite | Standard Draize | Rabbit | 500 mg | 4 hours | Not corrosive or | ECHA |
| (1 - 5%) | Test | | | | irritating to skin | |

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Serious eye damage/irritation

Classification based on data available for ingredients. Causes burns. Risk of serious damage to eyes.

Mixture

No data available.

CAS#: 7757-83-7

Ingredient Eye Damage/Eye Irritation Data

Test data reported below.

| Chemical name | Test method | Species | Reported dose | Exposure time | Results | Key literature references and sources for data |
|--|-------------------------|---------|------------------|------------------|-------------------|--|
| N,N-Dimethylformami de (20 - 30%) CAS#: 68-12-2 | Rinse Test | Rabbit | 100 mg | None reported | Corrosive to eyes | RTECS |
| Sodium metabisulfite (3 - 7%) CAS#: 7681-57-4 | Standard Draize Test | Rabbit | 107 mg | None reported | Corrosive to eyes | RTECS |
| Sodium sulfite (1 - 5%) CAS#: 7757-83-7 | Standard Draize Test | Rabbit | 162 mg | None reported | Mild eye irritant | ECHA |

Respiratory or skin sensitization

May cause sensitization by inhalation.

Mixture

No data available.

Ingredient Sensitization Data

Test data reported below.

Skin Sensitization Exposure Route

| Chemical name | Test method | Species | Results | Key literature references and sources for data |
|--|---|------------|---------------------------------------|--|
| N,N-Dimethylformami de (20 - 30%) CAS#: 68-12-2 | OECD Test No. 406: Skin Sensitization | Guinea pig | Not confirmed to be a skin sensitizer | IUCLID |

Respiratory Sensitization Exposure Route

| Chemical name | Test method | Species | Results | Key literature references and sources for data |
|---|---------------------------|---------|--|---|
| Sodium metabisulfite (3 - 7%) CAS#: 7681-57-4 | Based on human experience | Human | Confirmed to be a respiratory sensitizer | GESTIS |
| Sodium sulfite (1 - 5%) CAS#: 7757-83-7 | Based on human experience | Human | Confirmed to be a respiratory sensitizer | OECD 429: Skin Sensitization: Local Lymph Node Assay |

STOT - single exposure

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

Mixture

No data available.

Ingredient Specific Target Organ Toxicity Single Exposure Data

No data available.

STOT - repeated exposure

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

Mixture

No data available.

Ingredient Specific Target Organ Toxicity Repeat Exposure Data

Test data reported below.

Oral Exposure Route

| Chemical name | Endpoint type | Reported dose | Exposure time | Toxicological effects | Key literature references and sources for data |
|----------------------|---------------|---------------|---------------|----------------------------------|--|
| Sodium metabisulfite | Rat | 75 mg/kg | 15 days | Biochemical | RTECS |
| (3 - 7%) | TD_Lo | | j | Enzyme inhibition, induction, or | |
| CAS#: 7681-57-4 | | | | change in blood or tissue levels | |
| | | | | (phosphatases and | |
| | | | | dehydrogenases) | |
| | | | | Kidney, Ureter, or Bladder | |
| | | | | Other changes in urine | |
| | | | | composition | |

Carcinogenicity

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

Mixture

No data available.

Ingredient Carcinogenicity Data

No data available.

| Chemical name | CAS No | ACGIH | IARC | NTP | OSHA |
|-----------------------|-----------|-------|----------|-----|------|
| N,N-Dimethylformamide | 68-12-2 | A3 | Group 2A | - | X |
| Sodium metabisulfite | 7681-57-4 | - | Group 3 | - | - |
| Sodium sulfite | 7757-83-7 | - | Group 3 | - | - |

Legend

| ACGIH (American Conference of Governmental Industrial Hygienists) | Does not apply |
|---|---|
| IARC (International Agency for Research on Cancer) | Group 3 - Not classifiable as a human |
| | carcinogen Group 2A - Probably Carcinogenic to Humans |
| NTP (National Toxicology Program) | Does not apply |
| OSHA | X - Present |

Germ cell mutagenicity

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

Mixture invitro Data

No data available.

Substance invitro Data

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Test data reported below.

| Chemical name | Test | Cell Strain | Reported dose | Exposure time | Results | Key literature references and sources for data |
|--|----------------------------|---------------------------|---------------|---------------|--|--|
| N,N-Dimethylformami de (20 - 30%) CAS#: 68-12-2 | Mutation in microorganisms | Salmonella typhimurium | None reported | None reported | Negative | RTECS |
| Sodium metabisulfite (3 - 7%) CAS#: 7681-57-4 | Cytogenetic analysis | Hamster ovary | 0.18 mg/L | None reported | Positive test result for mutagenicity | RTECS |
| Sodium sulfite (1 - 5%) CAS#: 7757-83-7 | Cytogenetic analysis | Mouse sperm cells | 25 mg/L | None reported | Positive test result for mutagenicity | RTECS |

Mixture invivo Data

No data available.

Substance invivo Data

No data available.

Reproductive toxicity

Classification based on data available for ingredients. Contains a known or suspected reproductive toxin. The table below indicates ingredients above the cut-off threshold considered as relevant which are listed as reproductive toxins.

Mixture

No data available.

Ingredient Reproductive Toxicity Data

Test data reported below.

Oral Exposure Route

| Chemical name | Endpoint type | Reported dose | Exposure time | Toxicological effects | Key literature references and sources for data |
|----------------------|------------------|---------------|---------------|-----------------------|--|
| Sodium metabisulfite | Rat | 20000 mg/kg | None reported | Effects on Newborn | RTECS |
| (3 - 7%) | TD_Lo | | · | Stillbirth | |
| CAS#: 7681-57-4 | | | | | |

Inhalation (Vapor) Exposure Route

| Chemical name | Endpoint type | Reported dose | Exposure time | Toxicological effects | Key literature references and sources for data |
|---------------------|---------------|---------------|---------------|----------------------------------|--|
| N,N-Dimethylformami | Mouse | 50 mg/L | 6 hours | Paternal Effects | RTECS |
| de | TD_Lo | | | Spermatogenesis (including | |
| (20 - 30%) | | | | genetic material, sperm | |
| CAS#: 68-12-2 | | | | morphology, motility, and count) | |

Aspiration hazard

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

12. ECOLOGICAL INFORMATION

Ecotoxicity Harmful to aquatic life with long lasting effects.

Unknown aquatic toxicity 0.01% of the mixture consists of components(s) of unknown hazards to the aquatic

environment.

Mixture

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Aquatic Acute Toxicity No data available.

NO data available.

Aquatic Chronic Toxicity

No data available.

Substance

Aquatic Acute Toxicity

Test data reported below.

Fish

| Chemical name | Exposure time | Species | Endpoint type | Reported dose | Key literature references and sources for data |
|--|---------------|---------------------|---------------|---------------|---|
| N,N-Dimethylformami de (20 - 30%) CAS#: 68-12-2 | 96 hours | Lepomis macrochirus | LC50 | 7100 mg/L | PEEN |
| Sodium metabisulfite (3 - 7%) CAS#: 7681-57-4 | 96 hours | Salmo gairdneri | LC50 | 15 mg/L | IUCLID |
| Sodium sulfite (1 - 5%) CAS#: 7757-83-7 | 96 hours | Leuciscus idus | LC50 | 170 mg/L | OECD 429: Skin Sensitization: Local Lymph Node Assay |

Crustacea

| Chemical name | Exposure time | Species | Endpoint type | Reported dose | Key literature references and sources for data |
|--|---------------|---------------|---------------|---------------|---|
| N,N-Dimethylformami de (20 - 30%) CAS#: 68-12-2 | 48 Hours | Daphnia magna | EC50 | 7500 mg/L | PEEN |
| Sodium sulfite (1 - 5%) CAS#: 7757-83-7 | 48 Hours | Daphnia magna | EC50 | 18 mg/L | OECD 429: Skin Sensitization: Local Lymph Node Assay |

Algae

| Chemical name | Exposure time | Species | Endpoint type | Reported dose | Key literature references and sources for data |
|--|---------------|---------------------------|---------------|---------------|---|
| N,N-Dimethylformami de (20 - 30%) CAS#: 68-12-2 | 96 hours | Scenedesmus subspicatus | EC50 | > 500 mg/L | PEEN |
| Sodium metabisulfite (3 - 7%) CAS#: 7681-57-4 | 96 hours | Scenedesmus subspicatus | EC50 | 40 mg/L | IUCLID |
| Sodium sulfite (1 - 5%) CAS#: 7757-83-7 | None reported | Chlamydomonas reinhardtii | EC50 | 63 mg/L | OECD 429: Skin Sensitization: Local Lymph Node Assay |

Aquatic Chronic Toxicity

No data available.

Persistence and degradability

Mixture

No data available.

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Bioaccumulation

There is no data for this product

Mixture

No data available.

Partition coefficient Not applicable

Mobility

Soil Organic Carbon-Water Partition Coefficient Not applicable

Other adverse effects
No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste from residues/unused

products

Dispose of in accordance with local regulations. Dispose of waste in accordance with

environmental legislation.

Contaminated packaging Do not reuse empty containers.

US EPA Waste Number Not applicable

Special instructions for disposal Incinerate material at an E.P.A. approved hazardous waste facility.

14. TRANSPORT INFORMATION

DOT Not regulated

TDG Not regulated

IATA Not regulated

IMDG Not regulated

Note: No special precautions necessary.

Additional information

15. REGULATORY INFORMATION

National Inventories

TSCA Complies DSL/NDSL Complies

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

International Inventories

EINECS/ELINCS

ENCS
Does not comply
IECSC
KECL
Does not comply
PICCS
Complies
Complies
TCSI
Complies

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AICS Complies NZIoC Complies

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

TCSI - Taiwan Chemical Substances Inventory

AICS - Australian Inventory of Chemical Substances

NZIoC - New Zealand Inventory of Chemicals

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

| Chemical name | SARA 313 - Threshold Values % | |
|--|-------------------------------|--|
| N,N-Dimethylformamide (CAS #: 68-12-2) | 0.1 | |

SARA 311/312 Hazard Categories

| Acute health hazard | Yes |
|-----------------------------------|-----|
| Chronic Health Hazard | Yes |
| Fire hazard | No |
| Sudden release of pressure hazard | No |
| Reactive Hazard | No |

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

| Chemical name Hazardous Substance | | CERCLA/SARA RQ | Reportable Quantity (RQ) |
|-----------------------------------|--------|----------------|--------------------------|
| N,N-Dimethylformamide | 100 lb | - | RQ 100 lb final RQ |
| 68-12-2 | | | RQ 45.4 kg final RQ |

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals

| Chemical name | California Proposition 65 | |
|--|---------------------------|--|
| N,N-Dimethylformamide (CAS #: 68-12-2) | Carcinogen | |

WARNING: This product can expose you to chemicals including N,N-Dimethylformamide, which is known to the State of California to cause cancer.

For more information, go to http://www.P65Warnings.ca.gov

IMERC: Not applicable

U.S. State Right-to-Know Regulations

This product may contain substances regulated by state right-to-know regulations.

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| Chemical name | New Jersey | Massachusetts | Pennsylvania |
|-----------------------------------|------------|---------------|--------------|
| N,N-Dimethylformamide 68-12-2 | X | X | X |
| Sodium metabisulfite 7681-57-4 | X | X | X |

U.S. EPA Label Information

| Chemical name | FIFRA | FDA | |
|----------------------|----------|-----------------|--|
| Sodium metabisulfite | - | 21 CFR 182.3766 | |
| Sodium sulfite | 180.0910 | 21 CFR 182.3798 | |

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

Special Comments

None

Additional information

Global Automotive Declarable Substance List (GADSL)

| Chemical name | Global Automotive Declarable | Global Automotive Declarable |
|-----------------------|--------------------------------|------------------------------|
| | Substance List Classifications | Substance List Thersholds |
| N,N-Dimethylformamide | Prohibited Substance (LR) | 0.3 % |
| 68-12-2 | Declarable Substance (LR) | |
| Sodium metabisulfite | Declarable Substance (LR) | None reported |
| 7681-57-4 | Prohibited Substance (LR) | • |
| Sodium sulfite | Declarable Substance (LR) | None reported |
| 7757-83-7 | Prohibited Substance (LR) | - |

NFPA and HMIS Classifications

| NFPA | Health hazards - 3 | Flammability - 1 | Instability - 0 | Physical and chemical properties - |
|------|--------------------|------------------|----------------------|------------------------------------|
| HMIS | Health hazards - * | Flammability - 1 | Physical hazards - 0 | Personal protection - |
| | - 2 | - | - | X |
| | | | | - [|

Key or legend to abbreviations and acronyms used in the safety data sheet

ACGIH (American Conference of Governmental Industrial Hygienists)
ATSDR (Agency for Toxic Substances and Disease Registry)
CCRIS (Chemical Carcinogenesis Research Information System)

CDC (Center for Disease Control)

CEPA CEPA (Canadian Environmental Protection Agency)

CICAD CICAD (Concise International Chemical Assessment Documents)

ECHA ECHA (The European Chemicals Agency)
EEA EEA (European Environment Agency)
EPA EPA (Environmental Protection Agency)

ERMA (New Zealands Environmental Risk Management Authority)

ECOSARS Estimation through ECOSARS v1.11 part of the Estimation Programs Interface (EPI) Suite™

FDA FDA (Food & Drug Administration)

GESTIS GESTIS (Information System on Hazardous Substances of the German Social Accident

Insurance)

HSDB (Hazardous Substances Data Bank)

INERIS (The National Industrial Environment and Risks Institute)

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IPCS INCHEM IPCS INCHEM (International Programme on Chemical Safety) IUCLID (The International Uniform Chemical Information Database) **IUCLID** Japan National Institute of Technology and Evaluation (NITE) NITE NIH

NIH (National Institutes of Health)

NIOSH NIOSH (National Institute for Occupational Safety and Health) LOLI LOLI (List of Lists - An International Chemical Regulatory Database)

NDF no data

NICNAS Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)

NIOSH IDLH Immediately Dangerous to Life or Health

OSHA OSHA (Occupational Safety and Health Administration of the US Department of Labor)

PEEN (Pan European Ecological Network) **PEEN**

RTECS (Registry of Toxic Effects of Chemical Substances) **RTECS** SIDS (Screening Information Dataset) for High Volume Chemicals SIDS

The Finnish Environment Institute (SYKE) SYKE USDA (United States Department of Agriculture) USDA USDC (United States Department of Commerce) **USDC**

WHO WHO (World Health Organization)

Legend - Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA TWA (time-weighted average) STEL STEL (Short Term Exposure Limit)

MAC Maximum Allowable Concentration Ceiling Ceiling Limit Value

Listed Vacated Χ These values have no official status. The only

binding levels of contaminants are those listed in the final OSHA PEL. These lists are for reference purposes only. Please note that some reference state regulations of these "liberated" exposure limits in their state

regulations.

SKN* Skin designation Skin sensitization SKN+ RSP+ Respiratory sensitization Hazard Designation Carcinogen R Reproductive toxicant С

mutagen M

Prepared By Hach Product Compliance Department

Issue Date 14-Dec-2020

Revision Date 26-Jan-2024

Revision Note None

Disclaimer

USER RESPONSIBILITY: Each user should read and understand this information and incorporate it in individual site safety programs in accordance with applicable hazard communication standards and regulations.

THE INFORMATION CONTAINED HEREIN IS BASED ON DATA CONSIDERED TO BE ACCURATE. HOWEVER, NO WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE **OBTAINED FROM THE USE THEREOF.**

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End of Safety Data Sheet

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