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1 Identification
Product identifier
 Trade name: <u>Sulfamic Acid Reagent B</u> Product code: DU409878 CAS Number: 5329-14-6
 Recommended use and restriction on use Recommended use: Laboratory chemicals Restrictions on use: No relevant information available.
 Details of the supplier of the Safety Data Sheet Manufacturer/Supplier: AquaPhoenix Scientific, Inc. 860 Gitts Run Road Hanover, PA 17331 USA Tel +1 (717)632-1291 Toll-Free: (866)632-1291 info@aquaphoenixsci.com Distributor: Dubois Chemicals Inc. 3630 East Kemper Rd, Cincinnati, OH 45241 (800) 438-2647
• Emergency telephone number: ChemTel Inc. (800)255-3924 (North America) +1 (813)248-0585 (International)
2 Hazard(s) identification
Classification of the substance or mixture Met. Corr.1 H290 May be corrosive to metals. Skin Corr. 1B H314 Causes severe skin burns and eye damage. Eye Dam. 1 H318 Causes serious eye damage.
 Label elements GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS). Hazard pictograms:
GHS05
 Signal word: Danger Hazard statements: H290 May be corrosive to metals. H314 Causes severe skin burns and eye damage. Precautionary statements:
P264 Wash thoroughly after handling. (Cont'd. on page

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

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D070	(Cont'd. of page
P273 P280	Avoid release to the environment.
P302+P352	Wear protective gloves and eye protection. If on skin: Wash with plenty of water.
	2338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses present and easy to do. Continue rinsing.
P362	Take off contaminated clothing.
P405	Store locked up.
P406	Store in corrosive resistant container with a resistant inner liner.
P501	Dispose of contents/container in accordance with local/regional/national/internation regulations.

3 Composition/information on ingredients

Chemical characterization: Substances
 CAS No. Description
 5329-14-6 sulfamic acid

4 First-aid measures

Description of first aid measures · General information: No special measures required. · After inhalation: Supply fresh air; consult doctor in case of complaints. • After skin contact: Brush off loose particles from skin. Immediately rinse with water. If skin irritation continues, consult a doctor. · After eye contact: Remove contact lenses if worn. Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor. · After swallowing: Rinse out mouth and then drink plenty of water. Do not induce vomiting; immediately call for medical help. · Most important symptoms and effects, both acute and delayed: Causes eye irritation. Causes mild skin irritation. Gastric or intestinal disorders when ingested. Danger: May be harmful if swallowed. No relevant information available. · Indication of any immediate medical attention and special treatment needed: No relevant information available.

5 Fire-fighting measures

• Extinguishing media

• Suitable extinguishing agents: Use fire fighting measures that suit the environment.

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according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

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	(Cont'd. of page 2)

• For safety reasons unsuitable extinguishing agents: No relevant information available. • Special hazards arising from the substance or mixture

During heating or in case of fire poisonous gases are produced.

· Advice for firefighters

· Protective equipment:

Wear self-contained respiratory protective device.

Wear fully protective suit.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation.

For large spills, use respiratory protective device against the effects of fumes/dust/aerosol. Wear protective equipment. Keep unprotected persons away.

Environmental precautions

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Methods and material for containment and cleaning up

Pick up mechanically.

Sweep up and place into an appropriate container.

Send for recovery or disposal in suitable receptacles.

Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage

[·] Handling

· Precautions for safe handling: Use only in well ventilated areas.

· Information about protection against explosions and fires: No special measures required.

Conditions for safe storage, including any incompatibilities

Requirements to be met by storerooms and receptacles:

Store only in the original receptacle.

Unsuitable material for receptacle: steel.

Unsuitable material for receptacle: aluminium.

- Information about storage in one common storage facility:
- Store away from foodstuffs.

Do not store together with alkalis (caustic solutions).

Store away from oxidizing agents.

• Further information about storage conditions:

Keep containers tightly sealed.

This product is hygroscopic.

Store in cool, dry conditions in well sealed receptacles.

Specific end use(s) No relevant information available.

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(Cont'd. on page 5)

8 Exposure controls/personal pr	otection
 Control parameters Components with limit values that re The product does not contain any rel monitored at the workplace. 	equire monitoring at the workplace: evant quantities of materials with critical values that have to be
 Exposure controls General protective and hygienic mean The usual precautionary measures for the Keep away from foodstuffs, beverages Immediately remove all soiled and control Wash hands before breaks and at the end Avoid contact with the eyes and skin. Engineering controls: Provide adequate Breathing equipment: Not required unterprotection of hands: 	nandling chemicals should be followed. and feed. aminated clothing. end of work. ate ventilation.
Protective gloves	
 Material of gloves Nitrile rubber, NBR Neoprene gloves Butyl rubber, BR Fluorocarbon rubber (Viton) Natural rubber, NR Sensibilization by the components in the Eye protection: 	e glove materials is possible.
Safety glasses	
Follow relevant national guidelines cond • Limitation and supervision of exp No relevant information available.	
9 Physical and chemical propert	ies
 Information on basic physical and Appearance: Form: Color: Odor: Odor threshold: 	d chemical properties Powder White Odorless Not determined.
 pH-value: Melting point/Melting range: Boiling point/Boiling range: 	Not applicable. 205 °C (401 °F) Not determined.

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

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de name: Sulfamic Acid Reagent		
		(Cont'd. of pa
Flash point:	The product is not flammable.	
Flammability (solid, gaseous):	Product is not flammable.	
Auto-ignition temperature:	Not determined.	
Decomposition temperature:	Not determined.	
Danger of explosion:	Product does not present an explosion hazard.	
Explosion limits Lower: Upper: Oxidizing properties:	Not determined. Not determined. Non-oxidizing.	
Vapor pressure:	Not determined.	
Density at 20 °C (68 °F): Relative density: Vapor density: Evaporation rate:	2.13 g/cm³ (17.77 lbs/gal) Not determined. Not applicable. Not applicable.	
Solubility in / Miscibility with Water:	Soluble.	
Partition coefficient (n-octanol/wa	ter): Not determined.	
Viscosity Dynamic: Kinematic: Other information	Not applicable. Not applicable. No relevant information available.	

10 Stability and reactivity

· Reactivity: No relevant information available.

• Chemical stability: Stable under normal temperatures and pressures.

Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

[·] Possibility of hazardous reactions

Reacts with alkali (lyes).

Corrosive action on metals.

Reacts with oxidizing agents.

Toxic fumes may be released if heated above the decomposition point.

• Conditions to avoid No relevant information available.

· Incompatible materials No relevant information available.

[•] Hazardous decomposition products

Under fire conditions only: Sulfur oxides (SOx)

Nitrogen oxides (NÓx)

11 Toxicological information

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	(Cont'd. of page
Information on toxicological effects	
· Acute toxicity: Based on available data, the classification criteria are not met.	
· LD/LC50 values that are relevant for classification:	
5329-14-6 Sulfamic acid	
Oral LD50 3160 mg/kg (rat)	
· Primary irritant effect:	
• On the skin: Based on available data, the classification criteria are not met.	
• On the eye: Causes eye irritation.	
• Sensitization: Based on available data, the classification criteria are not met.	
· IARC (International Agency for Research on Cancer):	
Substance is not listed.	
· NTP (National Toxicology Program):	
Substance is not listed.	
· OSHA-Ca (Occupational Safety & Health Administration):	
Substance is not listed.	
· Probable route(s) of exposure:	
Ingestion.	
Inhalation.	
Eye contact.	
Skin contact.	
• Acute effects (acute toxicity, irritation and corrosivity):	
May be harmful if swallowed.	
Causes serious eye irritation. Causes mild skin irritation.	
• Repeated dose toxicity: No relevant information available.	
• Germ cell mutagenicity: Based on available data, the classification criteria are not met	
• Carcinogenicity: Based on available data, the classification criteria are not met.	•
• Reproductive toxicity: Based on available data, the classification criteria are not met.	
• STOT-single exposure: Based on available data, the classification criteria are not met.	
• STOT-repeated exposure: Based on available data, the classification criteria are not met.	
• Aspiration hazard: Based on available data, the classification criteria are not met.	et.
,,	
2 Ecological information	
· Toxicity	
Aquatic toxicity	
5329-14-6 Sulfamic acid	
LC50 70.3 mg/l (pimephales promelas)	
EC50 71.6 mg/l (daphnia)	
ErC50 48 mg/l (Desmodesmus subspicatus)	
• Persistence and degradability No relevant information available.	
· Bioaccumulative potential: No relevant information available.	
 Mobility in soil: No relevant information available. Additional ecological information 	

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

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· General notes:

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Harmful to aquatic organisms

Rinse off of bigger amounts into drains or the aquatic environment may lead to decreased pH-values. A low pH-value harms aquatic organisms. If the dilution of the use-level pH-value is considerably increased after use, the aqueous waste, emptied into drains, is only low water-dangerous.

Other adverse effects No relevant information available.

13 Disposal considerations

[•] Waste treatment methods

· Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system. The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes. Residual materials should be treated as hazardous.

[·] Uncleaned packagings

· Recommendation: Disposal must be made according to official regulations.

UN-Number		
DOT, ADR/RID/ADN, IMDG, IATA	UN2967	
UN proper shipping name		
DOT, IMDG, IATA	SULPHAMIC ACID	
ADR/RID/ADN	2967 SULFAMINSÄURE	
Transport hazard class(es)		
DOT		
Class	8	
Label	8	
ADR/RID/ADN		
Class	8 (C2)	
Label	8`´	

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	(2000) 00 PC
IMDG, IATA	
3	
Class	8
Label	8
Packing group	
DOT, ADR/RID/ADN, IMDG, IATA	
Environmental hazards	Not applicable.
Special precautions for user	Warning: Corrosive substances
Hazard identification number (Kemler code):	80
EMS Number:	F-A,S-B Acids
Segregation groups	
Transport in bulk according to Annex II c MARPOL73/78 and the IBC Code	
MARPOL/3/76 and the IBC Code	Not applicable.
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Substance is not listed.

Canadian Domestic Substances List (DSL):

Substance is not listed.

16 Other information

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.

• Abbreviations and acronyms:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transportation IATA: International Air Transport Association CAS: Chemical Abstracts Service (division of the American Chemical Society) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent OSHA: Occupational Safety & Health Administration Met. Corr.1: Corrosive to metals - Category 1 Skin Corr. 1B: Skin corrosion/irritation - Category 1B Eye Dam. 1: Serious eye damage/eye irritation - Category 1 · Sources Website, European Chemicals Agency (echa.europa.eu) Website, US EPA Substance Registry Services (ofmpub.epa.gov/sor internet/registry/substreg/home/ overview/home.do) Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org) Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6 Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaasen, Curtis D., ed., ISBN: 978-0-07-176923-5. Safety Data Sheets, Individual Manufacturers