Printing date 10/06/2015 Reviewed on 10/06/2015

1 Identification

· Product identifier

· Trade name: EASY ETCH

· CAS Number:

5329-14-6

- · Recommended use and restriction on use
- · Recommended use: Industrial uses.
- · Restrictions on use: Contact manufacturer.
- Details of the supplier of the Safety Data Sheet
- · Manufacturer/Supplier:

Klein and Company, Inc.

165-167 Hickory Springs Industrial Drive

Canton, GA 30115 (800)241-0681

· Emergency telephone number:

ChemTel Inc.

(800)255-3924, +1 (813)248-0585

2 Hazard(s) identification

· Classification of the substance or mixture



GHS05 Corrosion

Met. Corr.1 H290 May be corrosive to metals.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

Combustible Dust May form combustible dust concentrations in air.

Additional information:

There are no other hazards not otherwise classified that have been identified.

0 % of the mixture consists of component(s) of unknown toxicity.

- · Label elements
- · GHS label elements

The substance is classified and labeled according to the Globally Harmonized System (GHS).

· Hazard pictograms:



- · Signal word: Warning
- · Hazard-determining components of labeling:

sulphamidic acid

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(Cont'd. of page 1)

Safety Data Sheet acc. to OSHA HCS (29 CFR 1910.1200)

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· Hazard statements:

H290 May be corrosive to metals.

H315 Causes skin irritation.

H319 Causes serious eve irritation.

May form combustible dust concentrations in air.

· Precautionary statements:

P264 Wash thoroughly after handling.

P280 Wear protective gloves and eye protection.

Avoid release to the environment. P273

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.

Take off contaminated clothing. P362 P302+P352 IF ON SKIN: Wash with plenty of water.

Store in corrosive resistant container with a resistant inner liner. P406

· Classification system

· NFPA ratings (scale 0 - 4)



Health = 1 Fire = 0

Reactivity = 0

· HMIS-ratings (scale 0 - 4)



1 Health = 1

Fire = 0

3 Composition/information on ingredients

- · Chemical characterization: Substances
- · CAS No. Description

5329-14-6 sulphamidic acid

4 First-aid measures

- Description of first aid measures
- · General information: Immediately remove any clothing soiled by the product.
- · 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 eve 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.

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Information for doctor

· Most important symptoms and effects, both acute and delayed:

Irritant to skin and mucous membranes.

Irritant to eyes.

Coughing

Breathing difficulty

Gastric or intestinal disorders

- · Danger: Danger of impaired breathing.
- Indication of any immediate medical attention and special treatment needed:

If necessary oxygen respiration treatment.

Medical supervision for at least 48 hours.

5 Fire-fighting measures

- · Extinguishing media
- · Suitable extinguishing agents:

Water

Carbon dioxide

Gaseous extinguishing agents

Foam

Fire-extinguishing powder

- · For safety reasons unsuitable extinguishing agents: None.
- · Special hazards arising from the substance or mixture

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

May form combustible dust concentrations in air.

- · Advice for firefighters
- · Protective equipment:

Wear self-contained respiratory protective device.

Wear fully protective suit.

• Additional information: Cool endangered receptacles with water spray.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Use respiratory protective device against the effects of fumes/dust/aerosol.

Wear protective equipment. Keep unprotected persons away.

Avoid formation of dust.

Ensure adequate ventilation.

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.

Send for recovery or disposal in suitable receptacles.

Dispose of the collected material according to regulations.

Reference to other sections:

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

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See Section 13 for disposal information.

7 Handling and storage

- · Handling
- · Precautions for safe handling:

Use only in well ventilated areas.

Prevent formation of dust.

Any deposit of dust which cannot be avoided must be regularly removed.

Do not dry clean dust covered objects and floors. Wash thoroughly with plenty of water.

· Information about protection against explosions and fires:

Dust can combine with air to form an explosive mixture.

- · Conditions for safe storage, including any incompatibilities
- · Storage
- · Requirements to be met by storerooms and receptacles:

Store in a cool location.

Store only in the original receptacle.

Unsuitable material for receptacle: aluminium.

Unsuitable material for receptacle: steel.

Protect from humidity and water.

· 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.

Store away from water.

- · Further information about storage conditions: Store in cool, dry conditions in well sealed receptacles.
- · Specific end use(s): No relevant information available.

8 Exposure controls/personal protection

- · Additional information about design of technical systems: No further data; see item 7.
- · Control parameters
- Components with limit values that require monitoring at the workplace: Not required.
- · Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures:

The usual precautionary measures for handling chemicals should be followed.

Do not inhale dust / smoke / mist.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

- · Engineering controls: Provide adequate ventilation.
- · Breathing equipment:

Not required under normal conditions of use.

Use suitable respiratory protective device when high concentrations are present.

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NIOSH or EN approved organic vapor respirator equipped with a dust/mist prefilter should be used.

· Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

- · Material of gloves Nitrile rubber, NBR
- Eye protection:



Safety glasses

- · Body protection: Acid resistant protective clothing
- · Limitation and supervision of exposure into the environment No relevant information available.
- · Risk management measures

See Section 7 for additional information.

No relevant information available.

9 Physical and chemical properties

- · Information on basic physical and chemical properties
- · General information

· Appearance:

Form: Solid
Color: White

Odor: Odorless

Odor threshold: Not determined.

· pH-value (10 g/l) at 20 °C (68 °F): 1.2

· Change in condition:

Melting point/Melting range: 205 °C (401 °F) (Decomposes)

Boiling point/Boiling range: Not determined.

• Flash point: Not applicable.

• Flammability (solid, gaseous): Product is not flammable.

Auto-ignition temperature: Not determined.
 Decomposition temperature: 205 °C (401 °F)
 Auto igniting: Not determined.

• Danger of explosion: Product does not present an explosion hazard.

· Explosion limits:

Lower: Not determined.
Upper: Not determined.
Oxidizing properties: Non-oxidizing.

Vapor pressure: Not applicable.

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Density at 20 °C (68 °F): 2.1 g/cm³ (17.525 lbs/gal)

Relative density: Not determined.
Vapor density: Not applicable.
Evaporation rate: Not applicable.

· Solubility in / Miscibility with:

Water at 20 °C (68 °F): 180 g/l

· Partition coefficient (n-octanol/water) at 20 °C

(68 °F): 0.1 log POW

· Viscosity:

Dynamic: Not applicable. **Kinematic:** Not applicable.

· Other information No relevant information available.

10 Stability and reactivity

- · Reactivity: No relevant information available.
- · Chemical stability:
- · Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

Avoid temperatures above 401 °F / 205 °C.

Possibility of hazardous reactions:

Corrodes aluminium.

Reacts with certain metals.

When diluting, always add acid to water, never vice versa.

Reacts with alkali (lyes).

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

As the product is supplied it is not capable of dust explosion; however enrichment with fine dust causes risk of dust explosion.

- Conditions to avoid: Store away from oxidizing agents.
- · Incompatible materials: No relevant information available.
- Hazardous decomposition products:

Ammonia

Sulfur oxides (SOx) Nitrogen oxides (NOx)

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:
- · LD/LC50 values that are relevant for classification:

5329-14-6 sulphamidic acid

Oral LD50 3160 mg/kg (rat)

- Primary irritant effect:
- · On the skin: Irritant to skin and mucous membranes.

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- On the eye: Irritating effect.
- · Sensitization: No sensitizing effects known.
- · Subacute to chronic toxicity: Toxic and/or corrosive effects may be delayed up to 24 hours.
- · Additional toxicological information:

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

- · Carcinogenic categories
- · IARC (International Agency for Research on Cancer)

Substance is not listed.

NTP (National Toxicology Propgram):

Substance is not listed.

· OSHA-Ca (Occupational Safety & Health Administration):

Substance is not listed.

· Probable route(s) of exposure:

Inhalation.

Ingestion.

Eve contact.

Skin contact.

- · Acute effects (acute toxicity, irritation and corrosivity): Irritating to eyes and skin.
- · Repeated dose toxicity: None.
- · CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
- · 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.

12 Ecological information

- · Toxicity
- · Aquatic toxicity: The material is harmful to the environment.
- · Persistence and degradability: No relevant information available.
- · Behavior in environmental systems
- · Bioaccumulative potential: Does not accumulate in organisms
- · Mobility in soil: No relevant information available.
- **Ecotoxical effects:**
- · Remark:

Harmful to fish

After neutralization a reduction of the harming action may be recognized

- Additional ecological information
- · 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

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Due to available data on eliminability/decomposition and bioaccumulation potential prolonged term damage of the environment can not be excluded.

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

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. Dilute concentrate with water and neutralize afterwards with suitable alkali material (sodium hydroxide solution, lime). The formed neutral salts are relatively environment-friendly.

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.

- · Waste disposal key: EPA RCRA Code (USA): D002 (liquid solutions only).
- Uncleaned packagings
- · Recommendation:

Disposal must be made according to official regulations.

Packagings that cannot be cleansed are to be disposed of in the same manner as the product.

UN2967

SULPHAMIC ACID

2967 SULPHAMIC ACID

14 Transport information

· UN-Number

· DOT, ADR, IMDG, IATA

UN proper shipping name

· DOT, IMDG, IATA

· ADR

· Transport hazard class(es)

· DOT



· Class 8 Corrosive substances

· Label

· ADR



8 (C2) Corrosive substances · Class

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· Label 8

· IMDG, IATA



· Class 8 Corrosive substances

· Label 8

· Packing group

· DOT, ADR, IMDG, IATA

· Environmental hazards

· Marine pollutant: No

· Special precautions for user Warning: Corrosive substances

Danger code (Kemler): 80

EMS Number: F-A,S-B
Segregation groups Acids

Transport in bulk according to Annex II of

MARPOL73/78 and the IBC Code Not applicable.

· Transport/Additional information:

DOT See 173.154(d) for corrosive exceptions.

· UN "Model Regulation" UN 2967 SULFAMIC ACID, 8, III

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture
- · United States (USA)
- ·SARA
- Section 302 (extremely hazardous substances):

Substance is not listed.

Section 304 (emergency release notification):

Substance is not listed.

· Sections 311/312 (hazardous chemical threshold planning quantity in pounds):

Substance is not listed.

Section 355 (extremely hazardous substances):

Substance is not listed.

· Section 313 (Specific toxic chemical listings):

Substance is not listed.

· TSCA (Toxic Substances Control Act)

Substance is listed.

- · Proposition 65 (California)
- · Chemicals known to cause cancer:

Substance is not listed.

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· Chemicals known to cause reproductive toxicity for females:

Substance is not listed.

· Chemicals known to cause reproductive toxicity for males:

Substance is not listed.

· Chemicals known to cause developmental toxicity:

Substance is not listed.

- · Carcinogenic categories
- · EPA (Environmental Protection Agency):

Substance is not listed.

· IARC (International Agency for Research on Cancer):

Substance is not listed.

TLV (Threshold Limit Value established by ACGIH):

Substance is not listed.

· NIOSH-Ca (National Institute for Occupational Safety and Health):

Substance is not listed.

- · Canadian substance listings
- · Canadian Domestic Substances List (DSL):

Substance is listed.

· Canadian Ingredient Disclosure list (limit 0.1%):

Substance is not listed.

Canadian Ingredient Disclosure list (limit 1%):

Substance is listed.

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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.

- · Date of preparation / last revision 10/06/2015 / -
- · Abbreviations and acronyms:

Met. Corr.1: Corrosive to metals, Hazard Category 1 Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2

· Sources

SDS Prepared by:

ChemTel Inc.

1305 North Florida Avenue

Tampa, Florida USA 33602-2902

Toll Free North America 1-888-255-3924 Intl. +01 813-248-0573

Website: www.chemtelinc.com