

1. Chemical Product and Company Identification

Eka Chemicals Inc.

1775 West Oak Commons Court
Marietta, GA 30062
USA

24 Hour Emergency Number
US CHEMTREC 1-800-424-9300
CANADA CANUTEC 1-613-966-6666

Product Name

BINDZIL® 2040NH4

Chemical Type

Amorphous silica, aqueous colloidal solution

Intended Use

Refractory binding applications

2 Hazards Identification

Emergency Overview

A translucent liquid with an ammonia odor which is a mild skin and eye irritant.

Routes of Exposure

Eyes, skin, and inhalation

Potential Health Effects

Ingestion

None expected.

Skin

Slightly irritating

Eyes

Slightly irritating

Inhalation

Breathing dried dust or spray mist causes irritation.

Target organs

Skin and eyes

Chronic Effects

Product contains amorphous silicon dioxide. No cases of silicosis have been reported from amorphous silica.

Medical Conditions Aggravated by Exposure

Existing asthma and lung diseases

3. Composition / Information on Ingredients

Component

Silica, Amorphous

Ammonium hydroxide

CAS #

7631-86-9

1336-21-6

% Wt/Wt

30 - 50 %

< 1 %

4. First Aid Measures

First Aid

Ingestion

Consult a physician. Do not induce vomiting or give anything by mouth to an unconscious person.

Skin

Immediately wash with plenty of soap and water. Remove all contaminated clothing which should be laundered before reuse.

Eyes

Immediately flush eyes thoroughly with water for at least 15 minutes. Obtain medical attention if irritation persists.

Inhalation

Remove patient to fresh air upon irritation or breathing difficulty.

Notes to Physician

None

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5. Fire Fighting Measures

Flammable Properties None

Extinguishing Media

Suitable Extinguishing Media Does not present a fire hazard.

Unsuitable Extinguishing Media Not applicable

Protection of Fire Fighters

Protective Equipment for Fire Fighters None.

Specific Hazards Arising From the Chemical None.

6. Accidental Release Measures

Environmental Precautions Do not flush with water. Clean up promptly by scoop or vacuum. Keep in suitable and closed containers for disposal. After cleaning, flush away traces with water.

Methods for Containment No Information

Methods for Clean-up No Information

7. Handling and Storage

Handling Procedures Avoid eye and skin contact. Maintain good personal hygiene.

Storage Procedures Observe local regulations. Do not store in light metal containers (Aluminum).

8. Exposure Controls / Personal Protection

Exposure Guidelines Amorphous silica: OSHA exposure limit: 5 mg/m³ SiO₂ respirable dust or mist, 10 mg/m³ total. 8 hour time weighted average.

Engineering Controls Ventilate adequately.

Personal Protective Equipment

Eyes/Face Goggles and eyewash station recommended.

Skin Rubber/PVC gloves and full working clothes recommended. Contaminated clothing should be laundered before re-use.

Respiratory Use NIOSH/MSHA approved respirator for dusty or misty conditions.

9. Physical & Chemical Properties

Appearance

Form Liquid

Color Translucent

Odor Ammonia

Odour Threshold Not Available.

Physical State liquid

pH 9.5 (25°C)

Melting Point Freezing point circa 0

Freezing Point Not Available.

Boiling Point Circa 100

Flash Point Not applicable

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Evaporation Rate	No data
Flammability	Not Available
Upper/Lower Flammability	Not applicable
Vapor Pressure	Not applicable
Vapor Density	Not Available.
Specific Gravity	1.3
Solubility (H2O)	Disperses in water but is negligibly soluble.
Coefficient of Water/Oil Distribution	No data
Octanol/H2O Coeff	Not Available.
Auto Ignition Temperature	Not applicable
Decomposition Temperature	Not Available.
Viscosity	No data
Bulk Density	1.3 gm/cc

10. Chemical Stability & Reactivity Information

Conditions to Avoid	Will not stand freezing.
Incompatible Materials	None known.
Hazardous Decomposition Products	None
Possibility of Hazardous Reactions	None No Information

11. Toxicological Information

Toxicological Information	This product is considered to be relatively harmless to man. However, dust from the dry product/spray may irritate the respiratory tract and cause symptoms of bronchitis.
Acute Effects	LD50 (oral, rat) = 3160 mg/kg (as 100% Silicon dioxide).
Component Analysis - LD50	No Information
Inhalation Effects	Rat TClO = 50 mg/m ³ /6hr/2Y-1:CAR*
Irritation to skin	No Information
Irritation to eyes	No Information
Sensitization Data	No Information
Carcinogenicity/mutagenicity & long term effects	No Information
Neurotoxicity	No Information
Reproductive toxicity/teratogenicity	No Information
Epidemiology	No Information

12. Ecological Information

Ecotoxicity

Aquatic toxicity	LC50 (Brachydanio rerio) 96hr > 5000 mg/l. EC50 (Ceriodaphnia dubia) 48hr = 7600mg/l. Algae: EC50 (Selenastrum capricornutum) = 440 mg/l.*
Ecological Information	No information.

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<i>Environmental Effects</i>	No Information
<i>Persistence/Degradability</i>	Not applicable for inorganic substances.

13. Disposal Considerations

<i>Disposal Instructions</i>	In accordance with municipal, provincial, state and federal regulations. Not a listed hazard. Recycling of containers may be permitted, provided the container is "empty", as described in 40 CFR 261.7(b)(1)", when the container is used within the United States. When the container is used within Canada, the following regulations apply: "A container that has been completely emptied using common practices, and that contains less than 2.5 cm of residue, is typically considered to be an "empty container" and not subject to regulation as a hazardous material or hazardous waste" (see also Ontario - O. Reg. 347, Quebec - O.C. 1091-2004, B.C. - B.C. Reg. 63/88, Alberta - Reg. 192/96, and/or Saskatchewan - E.10.2, Reg. 3, as appropriate).
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14. Transport information

<i>Goods Description</i>	Not applicable
<i>General</i>	No Information
<i>Transport Summary</i>	Not classified as dangerous for transport.

15. Regulatory Information

<i>US Federal Regulations</i>	In compliance
U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities	
Ammonium hydroxide	1336-21-6 1000 lb final RQ; 454 kg final RQ
<i>OSHA Regulated</i>	Not controlled
<i>SARA 302</i>	Not subject to SARA Section 302.
<i>SARA 311/312</i>	Not subject to SARA Section 311/312.
<i>SARA 313</i>	Not subject to SARA Section 313.
<i>Canada DSL</i>	In compliance.
<i>WHMIS Classification</i>	Not controlled
<i>General</i>	Not subject to California Proposition 65. Ammonium hydroxide (CAS Number 1336-21-6) RQ = 1000 lbs

16. Other Information

HMIS RATINGS		NFPA RATINGS	
<i>Health</i>	1	<i>Health</i>	1
<i>Flammability Classification</i>	0	<i>Flammability Classification</i>	0
<i>Reactivity</i>	0	<i>Reactivity</i>	0
<i>Pers. Prot</i>	B	<i>Special Hazards</i>	None

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Other Information

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MSDS Sections Updated

Disposal Considerations: Disposal Instructions

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