

## 1. Identification of the substance/preparation and of the company/undertaking

**Product Name** Gemini C-2000

**UN/ID No.** UN1760

**Synonyms** None

### Recommended use of the chemical and restrictions on use

**Recommended Use** Liquid Alkaline One-Step Cleaner

**Uses advised against** No information available

### Supplier Address

Anderson Chemical Company, 325 South Davis Avenue, Litchfield, MN 55355 (320-693-2477)

### Emergency telephone number

Chemtrec 1-800-424-9300

## 2. Hazards identification

### Classification

#### OSHA Regulatory Status

**Skin Corrosion/Irritation** Category 1 Sub-category A

**Serious Eye Damage/Irritation** Category 1

**Corrosive to Metals** Category 1



### Label Elements

Signal word: **Danger**

#### **Hazard Statements**

Causes severe skin burns and eye damage.

May be corrosive to metals.

#### **Precautionary Statements - Prevention**

Do not breathe dust/fume/gas/mist/vapors/spray. Wash face, hands and any exposed skin thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Keep only in original container.

#### **Precautionary Statements - Response**

Immediately call a POISON CENTER or doctor/physician. Specific treatment (see Section 4 on the SDS).

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

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.

IF INHALED: Remove victim to fresh air and keep comfortable for breathing.

IF SWALLOWED: Rinse mouth. DO NOT induce vomiting.

Absorb spillage to prevent material damage.

#### **Precautionary Statements - Storage**

Store locked up. Store in a corrosive resistant container.

#### **Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant.

#### **Hazards not otherwise classified (HNOC)**

##### **Other Information**

Harmful if swallowed or inhaled.

Harmful to aquatic life with long lasting effect.

## 3. Composition/information on ingredients

Chemical Name	CAS Number	% by Weight
Potassium hydroxide	1310-58-3	1-5
Sodium Hydroxide	1310-73-2	10-20

\*The exact percentage (concentration) of composition has been withheld as a trade secret.

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## 4. First aid measures

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### General advice

Immediate medical attention is required.

### Eye contact

Flush immediately with water for 15 minutes. Lift upper and lower eyelids for complete rinsing. Get immediate medical attention.

### Skin Contact

Flush with water for 15 minutes. Get medical attention. Remove contaminated clothing and wash before reuse.

### Inhalation

Remove victim from immediate source of exposure to fresh air. If breathing is difficult, administer oxygen if available. If victim is not breathing, administer CPR. If individual experiences nausea, headache, or dizziness, get immediate medical attention.

### Ingestion

Rinse mouth with water. Give water to dilute. Do not induce vomiting. Get immediate medical attention. Never give anything by mouth to a semi-comatose, comatose, convulsing or unconscious person.

### Self-protection of the first aider

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

## Most important symptoms and effects, both acute and delayed

### Symptoms

Corrosive. Causes irritation (possibly severe), burns to the eyes. May cause permanent eye damage. Causes irritation (possibly severe), burns to the skin. Causes irritation (possibly severe), burns, pulmonary edema to the respiratory tract. Causes irritation (possibly severe), burns, nausea, vomiting to the gastrointestinal tract. The severity of effects depend on concentration and how soon after exposure the area is washed.

## Indication of any immediate medical attention and special treatment needed

### Note to physicians

Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure.

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## 5. Fire-fighting measures

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### Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

### Unsuitable extinguishing media

None known.

### Specific hazards arising from the chemical

The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating and toxic gases and vapors. In the event of fire and/or explosion do not breathe fumes.

### Hazardous combustion products

Toxic fumes of sodium oxide.

## Explosion Data

**Sensitivity to mechanical impact** None

**Sensitivity to static discharge** None

## Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Use water spray to cool fire exposed containers. Move containers from fire area if you can do it without risk.

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## 6. Accidental release measures

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### Personal precautions, protective equipment and emergency procedures

#### Personal precautions

Evacuate nonessential personnel. Ventilate area. Wear appropriate personal protection equipment.

#### Environmental precautions

See Section 12 for additional ecological information. Prevent entry into sewers or waterways.

#### Methods for containment

Completely contain spilled material with dikes or sand bags, etc.

#### Methods for cleaning up

Recover as much material as possible into containers for disposal or reuse. Remaining material may be diluted with water and neutralized. Flush spill area with water. Neutralization products, both solid and liquid, must be recovered for disposal.

## 7. Handling and storage

### Precautions for safe handling

#### Advice on safe handling

Do not get in eyes, on skin, or clothing. Do not breathe vapors or mists. Do not ingest. Wash thoroughly after handling. Wear protective clothing/equipment. Use with adequate ventilation.

### Conditions for safe storage, including any incompatibilities

#### Storage Conditions

Keep containers tightly closed and properly labeled. Containers that have been emptied will retain product residue and should be handled as if they were full. Store in a cool, dry, well-ventilated place away from incompatible materials. Wash hands before eating, drinking, using tobacco, applying make-up or using the toilet. Do not store, use, and/or consume foods, beverages, tobacco in areas where this product is stored.

#### Incompatible materials

Oxidizing agent. Acids. Bases. Water. Organic material. Reducing sugars. Metals. (Aluminum, magnesium, zinc, copper, lead, tin and their alloys).

## 8. Exposure controls/personal protection

### Control parameters

#### Exposure Guideline

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Potassium hydroxide 1310-58-3	Ceiling: 2 mg/m <sup>3</sup>	(vacated) Ceiling: 2 mg/m <sup>3</sup>	Ceiling: 2 mg/m <sup>3</sup>
Sodium Hydroxide 1310-73-2	Ceiling: 2 mg/m <sup>3</sup>	TWA: 2 mg/m <sup>3</sup> (vacated) Ceiling: 2 mg/m <sup>3</sup>	IDLH: 10 mg/m <sup>3</sup> Ceiling: 2 mg/m <sup>3</sup>

### Appropriate engineering controls

Showers  
Eyewash stations  
Ventilation systems

### Individual protection measures, such as personal protective equipment

#### Eye/face protection

Wear protective splash proof safety goggles. Additional full face protection is recommended if splashing is a possibility.

#### Skin and body protection

Wear protective gloves and protective clothing. Protective shoes or boots.

#### Respiratory protection

If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

#### General Hygiene Considerations

Wash contaminated clothing before reuse.

## 9. Physical and chemical properties

### Information on basic physical and chemical properties

Physical state	Liquid
Color	Clear, colorless
Odor	Orderless
Odor threshold	No information available
pH	12.8 - 12.8, pH 1% solution
Melting point/freezing point	No information available
Boiling point / boiling range	No information available
Flash point	No information available
Evaporation rate	No information available
Flammability (solid, gas)	No information available
Flammability upper limit in air	No information available
Flammability lower limit in air	No information available
Vapor pressure	No information available
Vapor density	No information available
Specific Gravity	1.221 - 1.241
Water solubility	Soluble in water
Partition coefficient	No information available
Autoignition temperature	No information available

<b>Decomposition temperature</b>	No information available
<b>Kinematic viscosity</b>	No information available
<b>Dynamic viscosity</b>	No information available

## 10. Stability and reactivity

### Reactivity

No information available

### Chemical stability

Stable under recommended storage conditions.

### Possibility of Hazardous Reactions

None under normal processing.

### Conditions to avoid

NEVER add water to product. ALWAYS add product, with constant stirring, slowly to surface of water to minimize heat generation and splattering. Mixing with acid or incompatible materials may cause splattering and release of large amounts of heat. Will react with some metals forming flammable hydrogen gas. Carbon monoxide gas may form upon contact with reducing sugars or food and beverage products in enclosed spaces.

### Incompatible materials

Oxidizing agent. Acids. Bases. Water. Organic material. Reducing sugars. Metals. (Aluminum, magnesium, zinc, copper, lead, tin and their alloys).

### Hazardous Decomposition Products

Thermal decomposition can lead to release of irritating and toxic gases and vapors.

## 11. Toxicological information

### Information on likely routes of exposure

#### Product Information

<b>Inhalation</b>	May cause irritation of respiratory tract.
<b>Eye contact</b>	Corrosive to the eyes and may cause severe damage including blindness.
<b>Skin Contact</b>	Contact causes severe skin irritation and possible burns.
<b>Ingestion</b>	May be harmful if swallowed.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Potassium hydroxide 1310-58-3	214 mg/kg rat	No data available	No data available
Sodium Hydroxide 1310-73-2	-	= 1350 mg/kg ( Rabbit )	-

### Information on toxicological effects

**Symptoms** No information available

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

<b>Sensitization</b>	No information available
<b>Germ cell mutagenicity</b>	No information available
<b>Carcinogenicity</b>	No information available

Chemical Name	ACGIH	IARC	NTP	OSHA

<b>Reproductive toxicity</b>	No information available
<b>STOT - single exposure</b>	No information available
<b>STOT - repeated exposure</b>	No information available
<b>Aspiration hazard</b>	No information available

### Numerical measures of toxicity - Product Information

ATEmix (dermal) 7714 mg/kg

## 12. Ecological information

### Ecotoxicity

Harmful to aquatic life with long lasting effects

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Potassium hydroxide 1310-58-3		LC50 (Gambusia affinis): 80 mg/L 96h static	--

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Sodium Hydroxide 1310-73-2	-	45.4: 96 h Oncorhynchus mykiss mg/L LC50 static	-

**Persistence and degradability** No information available  
**Bioaccumulation** No information available

Chemical Name	Partition coefficient
Potassium hydroxide 1310-58-3	0.65 0.83

**Other adverse effects** No information available

## 13. Disposal considerations

### Waste treatment methods

**Disposal of wastes** Disposal should be in accordance with applicable regional, national and local laws and regulations.  
**Contaminated packaging** Do not reuse container.

Chemical Name	California Hazardous Waste Status
Potassium hydroxide 1310-58-3	Toxic Corrosive
Sodium Hydroxide 1310-73-2	Toxic, Corrosive

## 14. Transport information

**DOT** Regulated  
**UN/ID No.** UN1760  
**Proper shipping name** Corrosive Liquid, N.O.S.  
**Hazardous ingredients** (Sodium hydroxide/Potassium Hydroxide)  
**Hazard class** 8  
**Packing group** II

## 15. Regulatory information

### US Federal Regulations

#### SARA 311/312 Hazards

Skin Corrosion/Irritation  
 Serious Eye Damage/Irritation  
 Corrosive to Metals

#### CWA (Clean Water Act)

This product does contain substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	Reportable Quantities	Toxic Pollutants	Priority Pollutants	Hazardous Substances
Potassium hydroxide 1310-58-3	1000 lb	--	--	X
Sodium Hydroxide 1310-73-2	1000 lb	-	-	X

### CERCLA

This material, as supplied, contains 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 Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Potassium hydroxide 1310-58-3	1000 lb	--	RQ 1000 lb final RQ RQ 454 kg final RQ

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Sodium Hydroxide 1310-73-2	1000 lb	-	RQ 1000 lb final RQ RQ 454 kg final RQ

## US State Regulations

### California Proposition 65

This product does not contain any Proposition 65 chemicals.

### U.S. EPA Label Information

EPA Pesticide Registration Number Not Applicable

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## 16. OTHER INFORMATION

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**NFPA** Health hazards 3 Flammability 0 Instability 1 **Physical and Chemical Properties**  
**HMIS** Health hazards 3 Flammability 0 Physical hazards 1 **Personal protection** X  
**Prepared By** L. Tipka  
**Issue Date** 2014-10-20  
**Revision Date** 2024-03-06  
**Revision Note** Review and update

### Disclaimer

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**