

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name : HR-2400
Product form : Mixture
Product code : 30-00002

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Haze Remover

1.3. Details of the supplier of the safety data sheet

RhinoTech
2955 Lone Oak Circle
Eagan, MN 55121
651-686-5027

1.4. Emergency telephone number

Emergency number : ChemTel, Inc. 800-255-3924, International 813-248-0585

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (GHS-US)

<u>Hazard Code</u>	<u>Hazard Class</u>	<u>Hazard Category</u>
H302	Acute toxicity, oral	4
H314	Skin corrosion/irritation	1B
H351	Carcinogenicity	2
H370	Specific target organ toxicity, single exposure (Skin, Eyes, Mucous Membranes)	1
H373	Specific target organ toxicity, repeated exposure (Respiratory tract)	2

HANDLE IN ACCORDANCE WITH GOOD INDUSTRIAL HYGIENE AND SAFETY PRACTICES

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US)



Signal Word (GHS-US): **Danger**

Hazard Statements (GHS-US):

H302: Harmful if swallowed
H314: Causes severe skin burns and eye damage
H351: Suspected of causing cancer
H370: Causes damage to organs
H373: May cause damage to organs

Precautionary statements (GHS-US):

P201: Obtain special instructions before use
P202: Do not handle until all safety precautions have been read and understood
P260: Do not breathe dust/fumes/gas/mist/vapors/spray
P264: Wash thoroughly after handling
P270: Do not eat, drink or smoke when using this product
P280: Wear protective gloves/protective clothing/eye protection/face protection
P301+312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
P330: Rinse mouth
P301+330+331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting

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P303+361+353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P363: Wash contaminated clothing before reuse
P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P310: Immediately call a POISON CENTER or doctor/physician
P321: Specific treatment (see ... on this label)
P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing
P307+311: IF exposed: Call a POISON CENTER or doctor/physician
P314: Get Medical advice/attention if you feel unwell
P405: Store locked up
P501: Dispose of contents/container in accordance with local, state and federal authorities.

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS-US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	CAS #	%
Sodium Hydroxide	1310-73-2	15 - 20
Sodium xylenesulphonate	1300-72-7	5 - 10
Glycol Ether EPH -Ethylene glycol monophenyl ether	122-99-6	< 5
Furfuryl Alcohol	98-00-0	1 - 5

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation : IF INHALED: Assure fresh air breathing. Immediately call a POISON CENTER or doctor/physician.
First-aid measures after skin contact : IF ON SKIN: Immediately rinse with plenty of water (for at least 15 minutes). Get medical advice/attention.
First-aid measures after eye contact : IF IN EYES: Rinse immediately and thoroughly, pulling the eyelids well away from the eye (15 minutes minimum). Get medical advice/attention.
First-aid measures after ingestion : IF SWALLOWED: Rinse mouth, Do NOT induce vomiting. Dilute stomach contents by drinking water. If vomiting occurs spontaneously, keep head below hips to prevent breathing vomit into lungs. Call physician immediately. Obtain emergency medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries : Harmful if swallowed. Causes severe skin burns and eye damage. Suspected of causing cancer (via inhalation). May cause respiratory irritation. Causes damage to organs (respiratory system) through prolonged or repeated exposure (via inhalation).
Symptoms/injuries after inhalation : May cause headache, nausea and irritation of respiratory tract. Vapor or mist can irritate the respiratory tract (nose, throat and lungs) and mucous membranes. Inhalation may produce severe bronchitis and spasms, coughing and chest pains. May affect brain, sense organs, blood, behavior/central nervous system causing ataxia, excitement, headache, dizziness, weakness, drowsiness, unconsciousness and gastrointestinal tract (nausea, vomiting). Effects of inhalation may be delayed.
Symptoms/injuries after skin contact : Highly corrosive to skin.
Symptoms/injuries after eye contact : Causes serious eye burns.
Symptoms/injuries after ingestion : Severe irritation or burns to the mouth, throat, esophagus, and stomach. Orally Toxic.
Chronic symptoms : Prolonged and frequent exposure through inhalation may cause cancer.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Alcohol-resistant foam. Dry powder. Carbon dioxide.

5.2. Special hazards arising from the substance or mixture

Fire hazard : No Data. Flash point expected to be > 200 F based on ingredient data.

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- Explosion hazard : Product is not explosive.
- Reactivity : No dangerous reactions known under normal conditions of use.
- 5.3. Advice for firefighters**
- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Do not dispose of fire-fighting water in the environment.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Evacuate area. Keep upwind. Ventilate area. Spill should be handled by trained clean-up crews properly equipped with respiratory equipment and full chemical protective gear (see Section 8).

6.1.1. For non-emergency personnel

- Protective equipment : Wear Protective equipment as described in Section 8.
- Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

- Protective equipment : Wear suitable protective clothing, gloves and eye or face protection. Approved supplied-air respirator, in case of emergency.

6.2. Environmental precautions

- Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

- For containment : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.
- Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Place in a suitable container for disposal in accordance with the waste regulations (see Section 13).

6.4. Reference to other sections

- No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Do not handle until all safety precautions have been read and understood. Wear proper safety equipment including chemically resistant gloves and safety glasses or goggles. Use with adequate ventilation. Wash thoroughly after handling. Do not get in eyes or on skin. Do not breathe mist or vapor. Do not swallow.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Keep only in the original container in a cool, well ventilated place away from : heat sources. Keep container tightly closed. Store between 50 F & 100 F. Keep separate from incompatible materials.

7.3. Specific end use(s)

- No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No OSHA and ACGIH PEL's or TLV's for the listed ingredients of this product unless stated below:

Sodium Hydroxide, CAS# 1310-73-2			
OSHA PEL (TWA) ppm - if units not stated	OSHA PEL (STEL) ppm - if units not stated	OSHA PEL (Ceiling) ppm - if units not stated	ACGIH-TLV
2 mg/m3	Not Established	Not Established	2 mg/m3

Glycol Ether EPH -Ethylene glycol monophenyl ether, CAS #122-99-6			
OSHA PEL (TWA) ppm - if units not stated	OSHA PEL (STEL) ppm - if units not stated	OSHA PEL (Ceiling) ppm - if units not stated	ACGIH-TLV
25 ppm SKIN	Not Established	Not Established	Not Established

Furfuryl Alcohol, CAS #98-00-0			
OSHA PEL (TWA) ppm - if units not stated	OSHA PEL (STEL) ppm - if units not stated	OSHA PEL (Ceiling) ppm - if units not stated	ACGIH-TLV

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10 ppm	15 ppm	Not Established	10 ppm
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8.2. Exposure controls

Personal protective equipment	: Gloves. Protective goggles. Face shield. Protective clothing. Respiratory protection of the dependent type.
Hand protection	: Protective gloves made of chemically resistant material.
Eye protection	: Eye protection, including both chemical splash goggles and face shield, must be worn when possibility exists for eye contact due to spraying liquid or airborne particles.
Skin and body protection	: Wear suitable protective clothing.
Respiratory protection	: An approved organic vapor respirator/supplied air or self-contained breathing apparatus must be used when vapor concentration exceeds applicable exposure limits.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Clear.
Color	: Brown.
Odor	: Characteristic.
Odor Threshold	: No data available
pH	: 14
Relative evaporation rate (butyl acetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: > 100 °C (>212 °F)
Flash point	: No data available
Self ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: 1.245
Solubility	: No data available
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Contact with reactive metals (e.g. aluminum) may result in the generation of hydrogen gas.

10.2. Chemical stability

Stable under recommended handling and storage conditions (see section 7).

10.3. Possibility of hazardous reactions

Corrosive in contact with metals. Contact with metallic substances may release flammable hydrogen gas. Contact with strong acids can create excess heat and cause spattering.

10.4. Conditions to avoid

Sparks. Heat. Open flame. Contact with acids can cause violent eruptions and/or explosions.

10.5. Incompatible materials

Avoid contact with : Tin. Aluminum. Lead. Zinc. Strong oxidizing agents, strong acids, strong bases and metals.

10.6. Hazardous decomposition products

Thermal decomposition generates : Hydrogen Chloride. Carbon oxides (CO, CO₂). Nitrogen oxides. Hydrocarbons. Aldehydes. Ketones. Organic acids.

Other decomposition products : No data available.

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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Oral LD50: 1198 mg/kg (rat) Calculated

Dermal LD50: > 2000 mg/kg (rabbit) Calculated

Inhalation LC50: > 20 mg/l (Vapors-rat) Calculated

Sodium Hydroxide, CAS# 1310-73-2		
Oral LD50 rat	Dermal LD50 rabbit	Inhalation LC50
400 mg/kg rabbit	1350 mg/kg	No Data

Sodium xylenesulphonate, CAS# 1300-72-7		
Oral LD50 rat	Dermal LD50 rabbit	Inhalation LC50
>= 7,200 mg/kg	> 2,000 mg/kg	No Data

Glycol Ether EPH -Ethylene glycol monophenyl ether, CAS #122-99-6		
Oral LD50 rat	Dermal LD50 rabbit	Inhalation LC50
1,400 - 4,000 mg/kg	> 2,000 mg/kg	No Data

Furfuryl Alcohol, CAS #98-00-0		
Oral LD50 rat	Dermal LD50 rabbit	Inhalation LC50
177 mg/m3	400 mg/m3	0.82 - 2.07 mg/l for Vapor / 233 ppm gas

Skin corrosion/irritation	:	Causes severe skin burns and eye damage.
Serious eye damage/irritation	:	Causes severe skin burns and eye damage.
Respiratory or skin sensitization	:	Not classified
Germ cell mutagenicity	:	Not classified
Carcinogenicity	:	Suspected of causing cancer (Inhalation). Furfuryl Alcohol CAS#98-00-0 is Not listed in NTP however: NTP Draft Technical Report TR-482 (2-year inhalation studies rats and mice). Some evidence of carcinogenic activity in male rats, nasal neoplasms; equivocal evidence of carcinogenic activity in female rats, nasal and kidney neoplasms. Some evidence of carcinogenic activity in male mice, kidney neoplasms. No evidence of carcinogenic activity in female mice.
Reproductive toxicity	:	Not classified
Specific target organ toxicity (single exposure)	:	Not classified.
Specific target organ toxicity (repeated exposure)	:	May cause damage to organs (respiratory system) through prolonged or repeated exposure (Inhalation).
Aspiration hazard	:	Not classified
Symptoms/injuries after inhalation	:	See Section 4.
Symptoms/injuries after skin contact	:	See Section 4.
Symptoms/injuries after eye contact	:	See Section 4.
Symptoms/injuries after ingestion	:	See Section 4.
Chronic symptoms	:	See Section 4.

SECTION 12: Ecological information

12.1. Toxicity

No additional information available

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

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SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Do not discharge to public wastewater systems without permit of pollution control authorities. No discharge to surface waters is allowed without an NPDES permit.

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Do not allow the product to be released into the environment.

SECTION 14: Transport information

14.1. UN number, proper shipping name, class and packaging group.:

Domestic Ground shipments

UN1824, Sodium Hydroxide Solution, 8, II

14.2. Additional information

SECTION 15: Regulatory information

15.1. US Federal regulations

TSCA Inventory: The components of this product are listed.

SARA Section 311/312, Hazard Category (40CFR 370.2): Acute and Chronic health hazard.

SARA Section 313, Toxic Release Reporting (40CFR Part372): Glycol Ether EPH, CAS#122-99-6, < 5.0% by weight.

SARA Section 302, EHS Emergency Planning (40CFR Part 355): No listed substance known over 1.0%.

SARA Section 304, EHS Release Reporting (40CFR Part 355): No listed substance known over 1.0%.

CERCLA Section 102-103 HS Release Reporting (40 CFR par302-102a): Sodium Hydroxide / CAS# 1310-73-2 / RQ 1000 lbs

15.2. International regulations

No Data

15.2.2. National regulations

No Data

15.3. US State regulations

California Prop. 65:

Approximate quantities by weight:

No listed substances known.

SECTION 16: Other information

Other information :
: None

NFPA health hazard : 3

NFPA fire hazard : 1

NFPA reactivity : 1

HMIS III Rating

Health : 3

Flammability : 1

Physical : 1

Personal Protection :

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