

Safety Data Sheet (SDS)

Formula 22

Issue date 06/28/2018

Reviewed on 06/28/2018

1. Identification

- **Product Identifier**
- **Name of the product:** Formula 22
- **Recommended Use:** Industrial cleaner
- **Use not recommended:** Not for use as a body wash

- **Details of the Supplier of the Safety Data Sheet:**
- **Manufacturer/Supplier:**
Ramsay Browne Chemical & Company
PO Box 6425
Moraga, CA 94570
General Number: (925) 280-1661
- **Emergency telephone number: (925) 280-1661**

2. Hazard(s) Identification

This product is a mixture for which no health data exist. The hazard communication standard requires that such mixtures be assumed to present the same health hazards as do components that constitute at least 1% of the mixture (0.1% for carcinogenic and highly toxic mixture) although OSHA has noted that the hazards of individual components may be altered by including them in a mixture. "Bridging principles" are used to assign hazard categories to the mixture, which may result in substantially different values than the original pure hazardous materials of which it is composed.

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

- **Classification of the substance or mixture:**



- **Health hazard, Environment, and other Warnings**

GHS Label elements, including precautionary statements

H315 Causes skin irritation.

H320 Causes eye irritation.

H333 May be harmful if inhaled.

H402 Harmful to aquatic life.

P260 Do not breathe mist/ vapors / spray.

P264 Wash thoroughly after handling.

P273 Avoid release to the environment.

P281 Use personal protective equipment as required.

Keep out of waterways.

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2. Hazard(s) Identification (continued)

P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P363 Wash contaminated clothing before reuse.

P501 Dispose of contents/ container to an approved waste disposal plant.

Hazards not otherwise classified (HNOC) or not covered by GHS – none

3. Composition / Information on ingredients

- **Chemical identity:** 2-Aminoethanol 6.6%
- **Common name:** Monoethanol amine, MEA
- **Numbers of identity:** 141-43-5
- **Impurities:** None of toxicological significance
- **Chemical identity:** 2-butoxyethanol 3.91
- **Common name:** EB, Butyl Cellosolve, Glycoether EB
- **Numbers of identity:** 111-76-2
- **Impurities:** None of toxicological significance

4. First-aid measures

- **P301+330+331 IF SWALLOWED:** Rinse mouth. Do NOT induce vomiting.
- **P302+352 IF ON SKIN:** Wash with soap and water.
- **P303+361+353 IF ON SKIN (or hair):** Remove/Take off immediately all contaminated clothing. Rinse skin with water.
- **P304+341 IF INHALED:** If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
- **P305+351+338 IF IN EYES:** Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do; continue rinsing.

5. Firefighting measures

- **Suitable extinguishing media:** Product is not flammable
- Use equipment appropriate for the main cause of a fire.
- **Precautions:**
- **Special protective equipment and precaution for firefighters:** None required
- **Flash point:** Does not flash.
- **Autoignition temperature:** Does not ignite.
- **Specific hazards in case of fire:** Sulfur, carbon and nitrogen oxides produced if product is burned.

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6. Accidental release measures

- **Personal precautions:**
- Spill may be slippery.
- **Environmental precautions.**
- Prevent spills from entering storm sewers or drains and contact with soil.
- **Methods and materials for containment and cleaning up:**
- Vacuum or mop up for possible use or reclaim. Common industrial absorbants may be used.
- Dispose as non hazardous waste.

7. Handling and storage

- **Precautions for safe handling:**
- Avoid contact with eyes. Avoid prolonged or repeated skin contact and breathing mists/vapors.
- **Conditions for safe storage, including incompatibilities:**
- **Standard safe storage conditions are appropriate:** avoid package damage and extremes in temperatures below 32°F and above 120°F.

8. Exposure controls / personal protection

- **Information on the system design:**
- Product is intended for external use only. Stay up wind, out of any spray developed.
- **Exposure Limits:** Reference 29CFR 1910.1000 Table Z-1
- **Component Name (CAS):** TWA STEL ppm
- **2-Aminoethanol 141-43-5:** 3 ppm 6ppm
- **2-Butoxyethanol 111-76-2:** 20 ppm (skin) 50 ppm (skin)
- **Personal protective equipment**
- **Respiratory protection:** No requirement anticipated.
- **Hand protection:** Rubber gloves.
- **Eye protection:** Safety glasses with side-shields.
- **Skin and body protection:** Chemical resistant apron or protective suit if splashing or repeated contact with solution is likely.
- **Hygiene measures:** Wash hands and face before breaks and immediately after handling the product. Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

- **Appearance:** Clear blue liquid
- **Odor:** "Butyl"
- **Odor threshold:** Not available
- **pH-value:** 10.5-11.5

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9. Physical and chemical properties (continued)

- **Melting point:** Not available
- **Freezing point:** Not available
- **Initial boiling point:** Approximately 100°C
- **Flash point:** Does not flash
- **Evaporation rate:** Not available
- **Flammability (solid, gas):** Not applicable
- **Explosion limits:** Not explosive
- **Vapor pressure:** (highest partial vapor pressure) at 20°C: Not available
- **Vapor density:** Not available
- **Relative density (water = 1.00):** 1.08 approx.
- **Solubility:** Totally soluble in water at 20°C
- **Partition coefficient:** Log Kow = Not applicable to mixture
- **Auto-ignition temperature:** Not available
- **Decomposition temperature:** Not available
- **Viscosity:** Like water

10. Stability and reactivity

- **Chemical stability:** No decomposition, if used according to specifications.
- **Possibility of hazardous reactions:** None known.
- **Conditions to avoid:** No dangerous conditions known.
- **Materials to avoid:** Zinc and zinc coatings.
- **Hazardous decomposition products:** None are known, Also see Section 5.

11. Toxicological information

- **Acute Toxicity:** No information available for finished product.
- **Test:** 2-Aminoethanol 2-Butoxyethanol
- **Oral Toxicity LD 50 (Rats):** 1720 mg/kg 1480 mg/kg
- **Dermal Toxicity LD 50 (Rabbit):** 1015 mg/kg 2000 mg/kg
- **Inhalation Toxicity, Vapor:** No data 700 ppm/7h (Mouse)
- **Eye Irritation (Rabbit):** Severe No data
- **Dermal Irritation (Rabbit):** No data No data
- **Likely/possible routes of exposure:** Ingestion, skin and eye contact.
- **Skin:** The product is not expected to be toxic by skin absorption.
- **Oral:** The product is not expected to be toxic by ingestion.
- **Inhalation:** The product is not expected to be toxic by inhalation.
- **H305** May be harmful if swallowed and enters airways
- **Irritation:**
- **H315** Causes skin irritation
- **H319** Causes serious eye irritation

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11. Toxicological information (continued)

- **H402** Harmful to aquatic life
- **Sensitization:** The product is not expected to be sensitizing.
- **Chronic toxicity:** Prolonged skin contact may defat the skin and produce dermatitis.
- **Carcinogenicity:** Not listed by NTP, IARC, OSHA or ACGIH as a suspect or potential carcinogen.
- **Summary Comments:** Product may have a drying effect on the skin; frequent or prolonged contact may cause flaking or cracking of the skin.

12. Ecological information

- **Persistence and degradability:**
- This product is expected to be inherently biodegradable.
- **Bio-accumulative potential:** There is no evidence to suggest bioaccumulation will occur.
- **Mobility:** Accidental spillage may lead to penetration in the soil and groundwater. However, no evidence that this would cause adverse ecological effects.
- **Ecotoxicity:** The product has not been tested.
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- **Basis:** a 96 hour median tolerance for fish (*Gambusia affinis*) of 2320
- **Ppm:** a 96 hour median tolerance for water fleas (*Daphnia magna*) of 247
- **Ppm:** a 96 hour median tolerance for snail
- A 96 hour median tolerance for Amphipoda of 160 ppm.

13. Disposal considerations

- Product as supplied is not an unlisted hazardous waste.
- Dispose in accordance with local, state and federal regulations.

14. Transport information

- **Domestic transport:** Not classified as dangerous goods under transport regulations.
- **Sea transport (IMDG):** Not classified as dangerous goods under transport regulations.
- **Air transport (IATA/CAO):** Not classified as dangerous goods under transport regulations.

15. Regulatory information

- **Inventory Status:**
- All components are on TSCA, EINECS/ELINCS, AICS and DSL.
- **U.S. Regulations:**
- **U. S. Superfund Amendments and Reauthorization Act (SARA) Title III:** SARA (311/312)
- **HAZARD CATEGORIES:** None
- **SARA 313:** This product contains the following SARA 313 Toxic Release Chemicals.

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15. Regulatory information (continued)

- Chemical Name: CAS Number Concentration
- 2-Butoxyethanol 111-76-2 3.91%
- **The following product components are cited on the lists below:**
- Chemical Name: CAS Number List Citations
- 2-Aminoethanol 141-43-5 RTK: MA, PA, NJ
- 2-Butoxyethanol 111-76-2 RTK: PA, NJ

16. Other information

- California Prop. 65 chemicals: This product contains chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm: 11-42-2

Hazard Categories:	Health	Fire	Pressure	Reactivity
Immediate	Yes	No	No	No
Delayed	No	No	XXX	XXX

Reference 49 CFR 171.8, OSHA 29 CFR 1910.1200 and SARA 302/311/312/313.

HMIS Hazard ratings:	Health: 2	Fire: 0	Instability: 0	Other B (Goggles, gloves)
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HMIS-ratings (scale 0-4)

<u>Formula 22</u>	
HEALTH	1
FIRE	0
REACTIVITY	0
PERSONAL PROTECTION	D

Hazard Ratings: Least =0, Slight =1, Moderate =2, High =3, Extreme =4

HMIS® is a registered trade and service mark of the NPCA.

MSDS's from ingredient suppliers do not provide sufficient information for complete categorization of the hazards as of the date of preparation of this document. Expert opinion and judgment has been used where deemed necessary and appropriate.