

Safety Data Sheet (SDS)

RB310 Process Cleaner

Issue date 06/06/2016

Reviewed on 10/15/2018

1. Identification

- **Product Identifier**
- **Name of the product:** RB310 Process Cleaner
- **Recommended Use:** Surface Process Cleaner

- **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



GHS Signal Word: DANGER

GHS Classifications:

Physical, Corrosive to metals, 1
Health, Acute toxicity, 4 Oral
Health, Skin corrosion/irritation, 1 A
Health, Serious eye damage/eye irritation, 1

GHS Phrases:

H290 - May be corrosive to metals
H302 - Harmful if swallowed
H314 - Causes severe skin burns and eye damage
H318 - Causes serious eye damage

GHS Precautionary Statements:

P260 - Do not breathe dust/fume/gas/mist/vapors/spray
P262 - Do not get in eyes, on skin, or on clothing
P264 - Wash skin thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P271 - Use only outdoors or in a well-ventilated area

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2. Hazard(s) Identification (continued)

P273 – Avoid release to the environment

P280 – Wear protective gloves/protective clothing/eye protection/face protection

P301+310 – IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician

P301+330+331 – IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303+361+353 – IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P304+340 – IF INHALED: 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.

P321 – Specific treatment (see supplementary first aid instructions on this label).

P363 – Wash contaminated clothing before reuse

P403+233 – Store in a well-ventilated place. Keep container tightly closed.

P405 – Store locked up.

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

3. Composition / Information on ingredients

CAS #	Percentage	Chemical Name
N/A	50-75%	Proprietary, non-hazardous, non-regulated
N/A	4.5%	Trade Secret**
7320-34-5	1-5%	Diphosphoric acid, tetrapotassium salt
1344-09-8	1-5%	Silicic acid, sodium salt
1310-58-3	1-5%	Potassium hydroxide

*Balance of ingredients are non-hazardous, as defined by OSHA 29 CFR 1910.1200 or the Globally Harmonized System of Classification and Labeling of Chemicals (GHS), or hazardous in less than 1% concentration (or 0.1% for carcinogens, reproductive toxins, or respiratory/skin sensitizers).

88The specific chemical identities of the ingredients of this mixture labeled as "Trade Secret" are considered to be proprietary and are withheld in accordance with the provisions of 29CFR1910.1200 Sect. (i) Trade Secrets).

4. First-aid measures

- **Inhalation:** Give oxygen or artificial respiration if needed. If symptoms develop, move victim to fresh air. If symptoms persist, obtain medical attention.
- **Skin Contact:** Take off contaminated clothing and shoes immediately. Promptly flush skin with water for at least 15 minutes to ensure all chemical is removed. If reddening develops and/or persists, obtain medical attention. Show this Safety Data Sheet to the attending physician.

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4. First-aid measures (continued)

- **Eye Contact:** Flush with large amounts of water for at least 15 minutes, lifting upper and lower lids occasionally. Get immediate medical attention. Continue rinsing eyes during transport to hospital. Show this Safety Data Sheet to the attending physician.
- **Ingestion:** Rinse mouth with water. Give 3-4 glasses of water or milk to dilute stomach contents. Do NOT induce vomiting. If vomiting occurs, give more water or milk. Never give anything by mouth to an unconscious person. Get immediate attention. Show this Safety Data
- **Most important symptoms and effects, both acute and delayed:** The most important known symptoms and effects are described in the labeling (see Section 2) and/or Section 11.
- **Indication of any immediate medical attention and special treatment needed:** No data available

5. Fire Fighting Measures

- **Flammability:** Not flammable
- **Flash Point:** None
- **Flash Point Method:** (TCC)
- **Burning Rate:** Not determined
- **Autoignition Temp:** Not determined
- **LEL:** None
- **UEL:** None
- **Extinguishing Media:** Water spray, carbon dioxide, alcohol-resistant foam, dry chemical
- **Special Hazards Arising from the Substance or Mixture:** Carbon oxides, hydrochloric acid gas, nitrogen oxides (NO_x), potassium oxides, silicon oxides, sodium oxides, sulfur oxides.
- **Advice for Firefighters:** Firefighters should wear full-face, positive-pressure respirators.
- **Further Information:** If incinerated, may release toxic fumes. Gives off Hydrogen by reaction with reactive metals (Zinc & Aluminum) and their alloys (Brass, etc.). Hydrogen is flammable and potentially explosive. Use caution. Use water spray to cool unopened containers. See Section 7 for more information on safe handling. See Section 8 for more information on personal protection equipment. See Section 13 for disposal information.

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6. Accidental Release Measures

- **Personal precautions, protective equipment and emergency procedures:** Use personal protective equipment. Keep from contacting skin or eyes. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.
- **Environmental precautions:** Prevent further release (leakage/spillage) if safe to do so. Do not allow product to enter drains. Do not allow to drain to environment.
- **Methods and materials for containments and cleaning up:** Absorb with liquid-binding material (sand, diatomite, universal binders, sawdust). Neutralizing agent like Sodium Bicarbonate may also be used to absorb/neutralize any spilled material. Place contaminated material into suitable, closed containers for disposal. Dispose of contaminated material according to Section 13. After spillage has been collected, area may be flushed with water or wet-brushed. Ensure adequate ventilation.
- **Reference to other sections:** Comply with federal, state and local regulations on reporting spills. See Section 7 for information on safe handling. See Section 8 for information on personal protection equipment. See Section 13 for information on proper disposal.

7. Handling and Storage

- **Handling Precautions:** Use personal protective equipment. Avoid breathing vapors or mist. Avoid contact with eyes, skin or clothing. Use approved, original containers only. Keep containers closed when not in use. Do not expose containers to open flame, excessive heat, or direct sunlight. Do not puncture or drop containers. Handle with care and avoid spillage on the floor. Keep material out of reach of children. Keep material away from incompatible materials. Wash thoroughly after handling. Ensure adequate ventilation.
- **Storage Requirements:** Keep away from heat, sparks and flames. Do not store in direct sunlight. Store away from strong acids, strong oxidizing agents, strong reducing agents, organic materials, water, chlorinated solvents, reactive metals (Zinc & Aluminum) and their alloys (Brass), Copper and its alloys, Carbon steel galvanized surfaced, Alkali metals (Lithium, Sodium, Potassium, etc.), Tin & Tin oxides, Lead, Phosphorous & Phosphorous Pentoxide, Nitro compounds (Nitromethane, etc.) Azides, Anhydrides, ammonium salts and Halogens.

8. Exposure Controls/Personal Protection

- **Engineering Controls:** All ventilation should be designed in accordance with OSHA standard (29 CFR 1910.94). Use local exhaust at filling zones and where leakage and dust formation is probable. Use mechanical (general) ventilation for storage areas. Use appropriate ventilation as required to keep Exposure Limits in Air below TLV & PEL limits.
- **Personal Protective Equip:**
- **Eye/face protection:** When using material use safety glasses, gloves and apron according to HMIS PP, C. A vapor respirator according to HMIS PP, U is recommended

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8. Exposure Controls/Personal Protection (continued)

when working with heated and/or concentrated product in poorly-ventilated spaces. All safety equipment should be tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

- **Skin protection:** Handle with gloves made from Neoprene, Nitrile or Buna rubber. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact. Dispose of contaminated gloves according to applicable laws and laboratory practices.
- **Body Protection:** Chemically resistant gloves, apron and safety glasses are recommended. Type of protection equipment should be selected based on concentration amount and conditions of use of this material.
- **Respiratory protection:** Use of a vapor respirator according to HMIS PP, U is recommended when working with heated and/or concentrated product in poorly-ventilated spaces. Full-face dust/vapor respirator may be required as backup to engineering controls when proper engineering controls are not in place to keep TLV and PEL limits below defined thresholds.
- **Control of environmental exposure:** Prevent leakage or spillage if safe to do so. Do not let material enter drains.

- **Components with workplace control parameters:**
- **Component(s):** Potassium Hydroxide
- **CAS No:** 1310-58-3
- **USA OSHA Table Z-1 Limits for Air Contaminants (C):** 2 mg/m³
- **USA ACGIH (C/TLV):** 2 mg/m³
- **USA NIOSH Recommended Exposure Limits (C):** 2 mg/m³
- **Biological occupational exposure limits:** Contains no substances with biological occupational exposure limit values

9. Physical and Chemical Properties

- **Appearance:** Clear, colorless to light amber liquid
- **Physical State:** Liquid
- **Odor Threshold:** Not determined
- **Particle Size:** No data available
- **Spec. Grav./Density:** 1.098 g/ml (9.17 lbs/gal)
- **Viscosity:** Not determined
- **Sat. Vap. Conc.:** Not determined
- **Boiling Point:** > 100.0°C (230°F)
- **Flammability:** (solid, gas) Not flammable
- **Partition Coefficient:** Not determined
- **Vapor Pressure:** (mm Hg @ 20°C) Not determined

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9. Physical and Chemical Properties (continued)

- **pH:** @ 100% > 13.0
- **Evap. Rate:** (N-Butyl Acetate = 1) Not determined
- **Molecular weight:** MIXTURE
- **Decomp. Temp:** Not determined
- **Odor:** Odorless
- **Molecular Formula:** MIXTURE
- **Solubility:** 100%
- **Softening Point:** Not determined
- **Percent Volatile:** 0%
- **Heat Value:** Not determined
- **Freezing/Melting Pt:** Not determined
- **Flash Point:** None
- **Octanol:** Not determined
- **Vapor Density:** (air = 1) Not determined
- **VOC:** 0 g/l
- **Bulk Density:** Not determined
- **Auto-Ignition Temp:** Not determined
- **UFL/LFL:** None

10. Stability and Reactivity

- **Stability:** Product is stable under normal conditions.
- **Conditions to Avoid:** Incompatibilities, flames, ignition sources.
- **Materials to Avoid:** Strong acids, strong oxidizing agents, strong reducing agents, organic materials, water, chlorinated solvents, reactive metals (Zinc & Aluminum) and their alloys (Brass), Copper and its alloys, Carbon steel galvanized surfaced, Alkali metals (Lithium, Sodium, Potassium, etc.), Tin & Tin oxides, Lead, Phosphorous & Phosphorous Pentoxide, Nitro compounds (Nitromethane, etc) Azides, Anhydrides, ammonium salts and Halogens.
- **Hazardous Decomposition:** Carbon Oxides, Hydrochloric Acid gas, Nitrogen Oxides (NO_x), Potassium Oxides, Silicon Oxides, Sodium Oxides and Sulfur Oxides.
- **Hazardous Polymerization:** Will not occur.

11. Toxicological Information

- **Component(s):** Trade Secret; Diphosphoric acid, tetrapotassium; Silicic acid, sodium salt; Potassium hydroxide
- **CAS No(s):** N/A; 7320-34-5; 1344-09-8; 1310-58-3
- **Acute Toxicity:**
- **LD50 Oral – Rat:** 333 mg/kg
- **LD50 Dermal – Rabbit:** >2,000 mg/kg

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11. Toxicological Information (continued)

- **Skin Corrosion/Irritation:** Rabbit skin – Corrosive (24 h)
- **Serious Eye Damage/Eye Irritation:** Rabbit eyes – Corrosive (24 h)
- **Respiratory or Skin Sensitation:** Will not occur.
- **Germ Cell Mutagenicity:** No data available

- **Carcinogenicity:**
- **IARC:** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by IARC.
- **ACGIH:** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
- **NTP:** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by NTP.
- **OSHA:** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
- **Reproductive Toxicity:** No data available
- **Specific Target Organ Toxicity – Single Exposure:** Respiratory system – May cause respiratory irritation.
- **Specific Target Organ Toxicity – Repeated Exposure:** No data available
- **Aspiration Hazard:** No data available

- **Additional Information:**
- **Component:** Trade Secret; RTECS- Withheld
- **Component:** Diphosphoric acid, tetrapotassium; RTECS – JL6735000
- **Component:** Silicic acid, sodium salt; RTECS- VV9365000
- **Component:** Potassium Hydroxide; RTECS – TT2100000

12. Ecological Information

- **Component(s):** Trade Secret; Diphosphoric acid, tetrapotassium; Silicic acid, sodium salt; Potassium hydroxide.
- **CAS No(s):** N/A; 7320-34-5; 1344-09-8; 1310-58-3

- **Toxicity:**
- **Toxicity to fish:**
- **LC50 – Other Fish:** 2.6 mg/l (96 h)
- **LC50 – Gambusia affinis (Mosquito Fish):** 80 mg/l (96 h)

- **Toxicity to daphnia and other aquatic invertebrates:**
- **EC50 – Daphnia magna (Water Flea):** 4.48 mg/l (48 h)
- **EC50 – Daphnia dubia (Water Flea):** 4.14-4.95 mg/l (48 h)

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12. Ecological Information (continued)

- **Toxicity to daphnia and other aquatic invertebrates:**
EC50 - Algae: 42.3 mg/l (48 h)
- **Persistence and Degradability:** No data available
- **Bioaccumulative potential:** No data available
- **Mobility in Soil:** No data available
- **Results of PBT and vPvB assessment:** Not required/conducted.
- **Other Adverse Effects:** An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life. Harmful to aquatic life with long lasting effects.

13. Disposal Considerations

- **Product:** Hazardous wastes shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution, release into the environment or damage to people and animals. Contact a licensed professional waste disposal service to dispose of this material.
- **Contaminated Packaging:** Dispose of as unused product.

14. Transport Information

- **DOT Class:** Corrosive (8) #8
- **UN#:** UN3266, Class 8
- **Proper Shipping Name:** Corrosive liquid, basic, inorganic, n.o.s. (containing Potassium Hydroxide)
- **DOT (US):**
UN Number: 3266
- **Class:** 8
- **Packing Group:** III
- **ERG#:** 154
- **Proper Shipping Name:** Corrosive liquid, basic, inorganic, n.o.s. (containing Potassium Hydroxide)
- **Reportable Quantity (RQ):** 2000 lbs (potassium Hydroxide)
- **Marine Pollutant:** No
- **Poison Inhalation Hazard(s):** No
- **IMDG:**
UN Number: 3266
- **Class:** 8
- **Packing Group:** III

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14. Transport Information (continued)

- **EMS-No:** F-A, S-B
- **Proper Shipping Name:** Corrosive liquid, basic, inorganic, n.o.s. (containing Potassium Hydroxide)
- **Marine Pollutant:** No
- **IATA:**
- **UN Number:** 3266
- **Class:** 8
- **Packing Group:** III
- **ERG#:** 154
- **Proper Shipping Name:** Corrosive liquid, basic, inorganic, n.o.s. (containing Potassium Hydroxide)
- **Marine Pollutant:** No

15. Regulatory Information

Component	CAS, %	Codes
Trade Secret	N/A, 4.5%	MASS, NJHS, PA, SARA311/312, TSCA
Diphosphoric acid, tetrapotassium salt	7320-34-5, 1-5%	NJHS, PA, SARA311/312, TSCA
Silicic acid, sodium salt	1344-09-8, 1.5%	MASS, NJHS, PA, SARA311/312, TSCA
Potassium hydroxide	1310-58-3, 1-5%	CERCLA, CSWHS, MASS, NJHS, OSHAWAC, PA, SARA311/312, TSCA, TXAIR

Regulatory Key Descriptions:

CERCLA = Superfund clean up substance

CSWHS = Clean Water Act Hazardous substances

MASS = MA Massachusetts Hazardous Substances List

NJHS = New Jersey Right to Know Hazardous Substances

OSHAWAC = OSHA Workplace Air Contaminants

PA = PA Right-to-Know List of Hazardous Substances

SARA311/312 = SARA 311/312 Toxic Chemicals

TSCA = Toxic Substances Control Act

TXAIR = TX Air Contaminants with Health Effects Screening Level

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16. Other Information

HMIS Hazard ratings:	Health: 2	Fire: 0	Instability: 0	Other: C (glasses, gloves, apron)
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HMIS –ratings (scale 0-4)

<u>RB310 Process Cleaner</u>	
HEALTH	2
FIRE	0
REACTIVITY	0
PERSONAL PROTECTION	C

Disclaimer: The data in this Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material in any process. The information set forth herein is furnished free of charge and is based on technical data that Ramsay Browne Chemical & Co believes to be reliable. It is intended for use by persons having technical skill and at their own discretion and risk. Since conditions of use are outside of Ramsay Browne Chemical & Co's control, Ramsay Browne Chemical & Co makes no warranties, expressed or implied, and assumes no liability in connection with any use of this information. Nothing herein is to be taken as a license to operate under, or a recommendation to infringe upon any patents.