



Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS)

SECTION 1: Identification

1.1. Product Identifier

Trade Name or Designation: Kovac's Aldehyde Reagent, for Detection of Indole Producing Bacteria

Product Number: 4260

Other Identifying Product Numbers: 4260-1, 4260-16, 4260-4

1.2. Recommended Use and Restrictions on Use

General Laboratory Reagent

1.3. Details of the Supplier of the Safety Data Sheet

Company: Ricca Chemical Company

Address: 448 West Fork Drive

Arlington, TX 76012 USA

Telephone: 888-467-4222

1.4. Emergency Telephone Number (24 hours)

CHEMTREC (USA)

800-424-9300

CHEMTREC (International)

1+ 703-527-3887

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SECTION 2: Hazard(s) Identification

2.1. Classification of the Substance or Mixture

For the full text of the Hazard and Precautionary Statements listed below, see Section 16.

Hazard Class	Category	Hazard Statements:	Precautionary Statements:
Skin Corrosion / Irritation	Category 1	H314	P260, P264, P280, P301+P330+P331, P303+P361+P353, P363, P304+P340, P310, P321, P305+P351+P338, P405, P501
Eye Damage / Irritation	Category 1	H318	P280, P305+P351+P338, P310
Skin Sensitizer	Category 1	H317	P261, P272, P280, P302+P352, P332+P313, P321, P363, P501
Flammable Liquids	Category 3	H226	P210, P233, P240, P241, P242, P243, P280, P303+P361+P353, P370+P378, P403+P235, P501
Corrosive to Metals	Category 1	H290	P234, P390, P406

2.2. GHS Label Elements

Pictograms:



Signal Word: **Danger**

Hazard Statements:

Hazard Number	Hazard Statement
H226	Flammable liquid and vapor.
H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.

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Precautionary Statements:

Precautionary Number	Precautionary Statement
P210	Keep away from heat, sparks and open flame. No smoking.
P233	Keep container tightly closed.
P234	Keep only in original container.
P240	Ground container and receiving equipment.
P241	Use explosion-proof equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P260	Do not breathe fumes, mist, vapors, or spray.
P261	Avoid breathing fumes, mist, vapors, or spray.
P264	Wash arms, hands and face thoroughly after handling.
P272	Contaminated work clothing must not be allowed out of the workplace.
P280	Wear protective gloves and eye protection.
P301+P330+P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P304+P340	IF INHALED: Remove person to fresh air and keep 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.
P310	Immediately call a POISON CENTER or physician.
P321	Specific treatment (Wash areas of contact with water.).
P332+P313	If skin irritation occurs: Get medical attention.
P363	Wash contaminated clothing before reuse.
P370+P378	In case of fire: Use dry chemical, foam or carbon dioxide to extinguish.
P390	Absorb spillage to prevent material damage.
P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P406	Store in corrosive resistant container with a resistant inner liner.
P501	Dispose of contents in accordance with local, state, federal and international regulations.

2.4. Hazards not Otherwise Classified or Covered by GHS

Data not available.

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SECTION 3: Composition / Information on Ingredients

3.1. Components of Substance or Mixture

Chemical Name	Formula	Molecular Weight	CAS Number	Weight%
1-Butanol	$\text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_2\text{OH}$	74.12 g/mol	71-36-3	63.78
Water	H_2O	18.01 g/mol	7732-18-5	19.51
Hydrochloric Acid	HCl	36.46 g/mol	7647-01-0	11.46
p-Dimethylaminobenzaldehyde	$\text{C}_9\text{H}_{11}\text{NO}$	149.18 g/mol	100-10-7	5.25

SECTION 4: First-Aid Measures

4.1. General First Aid Information

Eye Contact: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. May cause irritation with burning and stinging with possible damage to the cornea and conjunctiva.

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

Skin Contact: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Results in drying and cracking which can lead to secondary infections and dermatitis. Dermal absorption causes many of the symptoms of inhalation.

Ingestion: IF SWALLOWED: rinse mouth. Do NOT induce vomiting. Do not induce vomiting. Give large quantity of water. Call a physician immediately.

4.2. Most Important Symptoms and Effects, Acute and Delayed

Causes severe skin burns and eye damage. May cause an allergic skin reaction. Causes serious eye damage. DANGER! Flammable and Corrosive. Keep away from heat, sparks and open flames. Keep container closed. Use with adequate ventilation. Avoid prolonged breathing of vapor or contact with skin, eyes, or clothing. Avoid ingestion. If ingested, do not induce vomiting. Give large quantity of water and call a physician. Wash areas of contact with plenty of water for 15 minutes. For eyes, get medical attention. EYE CONTACT: May cause irritation with burning and stinging with possible damage to the cornea and conjunctiva. SKIN CONTACT: Results in drying and cracking which can lead to secondary infections and dermatitis. Dermal absorption causes many of the symptoms of inhalation.

4.3. Medical Attention or Special Treatment Needed

Immediately call a POISON CENTER or physician. Specific treatment (Wash areas of contact with water.). Irrigate immediately with large quantity of water for at least 15 minutes. Call a physician if irritation develops. Remove to fresh air. Give artificial respiration if necessary. If breathing is difficult, give oxygen. Wash areas of contact with soap and water for at least 15 minutes. Call a physician if irritation develops. Do not induce vomiting. Give large quantity of water. Call a physician immediately.

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SECTION 5: Fire-Fighting Measures

5.1. Extinguishing Media

In case of fire: Use dry chemical, foam or carbon dioxide to extinguish. Carbon dioxide, dry chemical, alcohol foam Does not burn. Use extinguishing agents compatible with acid and appropriate for the burning material.

5.2. Specific Hazards Arising from the Substance or Mixture

Flammable liquid and vapor. Not combustible. Aqueous hydrochloric acid solutions react with most metals, forming flammable hydrogen gas.

5.3. Special Protective Equipment for Firefighters

Wear special protective clothing and positive pressure self-contained breathing apparatus. Butyl rubber or Teflon barrier recommended.

SECTION 6: Accidental Release Measures

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

Ground container and receiving equipment. Use explosion-proof equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wear protective gloves and eye protection.

6.2. Cleanup and Containment Methods and Materials

Approach release from upwind. Stop or control the leak, if this can be done without undue risk. Use water fog or spray to knock down and absorb vapors. Releases may require isolation or evacuation. Control runoff and isolate discharged material for proper disposal.

SECTION 7: Handling and Storage

7.1. Precautions for Safe Handling and Storage Conditions

Store in corrosive resistant container with a resistant inner liner. As with all chemicals, wash hands thoroughly after handling. Avoid contact with eyes and skin. Protect from freezing and physical damage. Store in secure, flammable storage area away from all sources of ignition. Empty containers may be hazardous since they retain product residues.

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SECTION 8: Exposure Controls / Personal Protection

8.1 Control Parameters

Chemical Name	Limit Type	Country	Exposure Limit	Information Source
1-Butanol (71-36-3)	TLV-TWA	USA	"20 ppm TWA" As n-Butanol [71-36-3]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
1-Butanol (71-36-3)	TWA	USA	"100 ppm TWA; 300 mg/m ³ TWA" As n-Butyl alcohol [71-36-3]	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
1-Butanol (71-36-3)	TLV-TWA	USA	"20 ppm TWA" As n-Butanol [71-36-3]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
1-Butanol (71-36-3)	TWA	USA	"100 ppm TWA; 300 mg/m ³ TWA" As n-Butyl alcohol [71-36-3]	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
1-Butanol (71-36-3)	TLV-TWA	USA	"20 ppm TWA" As n-Butanol [71-36-3]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
1-Butanol (71-36-3)	TWA	USA	"100 ppm TWA; 300 mg/m ³ TWA" As n-Butyl alcohol [71-36-3]	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
1-Butanol (71-36-3)	TLV-TWA	USA	"20 ppm TWA" As n-Butanol [71-36-3]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
1-Butanol (71-36-3)	TWA	USA	"100 ppm TWA; 300 mg/m ³ TWA" As n-Butyl alcohol [71-36-3]	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
1-Butanol (71-36-3)	TLV-TWA	USA	20 ppm TWA	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
1-Butanol (71-36-3)	TWA	USA	100 ppm TWA; 300 mg/m ³ TWA	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Hydrochloric Acid (7647-01-0)	PEL-Ceiling	USA	"5 ppm Ceiling; 7 mg/m ³ Ceiling" As Hydrogen chloride [7647-01-0]	U.S. - OSHA - Final PELs - Ceiling Limits
Hydrochloric Acid (7647-01-0)	TLV-Ceiling	USA	"2 ppm Ceiling" As Hydrogen chloride [7647-01-0]	ACGIH - Threshold Limit Values - Ceilings (TLV-C)
Hydrochloric Acid (7647-01-0)	TLV-Ceiling	USA	"2 ppm Ceiling" As Hydrogen chloride [7647-01-0]	ACGIH - Threshold Limit Values - Ceilings (TLV-C)

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Hydrochloric Acid (7647-01-0)	PEL-Ceiling	USA	"5 ppm Ceiling; 7 mg/m ³ Ceiling" As Hydrogen chloride [7647-01-0]	U.S. - OSHA - Final PELs - Ceiling Limits
Hydrochloric Acid (7647-01-0)	TLV-Ceiling	USA	"2 ppm Ceiling" As Hydrogen chloride [7647-01-0]	ACGIH - Threshold Limit Values - Ceilings (TLV-C)
Hydrochloric Acid (7647-01-0)	PEL-Ceiling	USA	"5 ppm Ceiling; 7 mg/m ³ Ceiling" As Hydrogen chloride [7647-01-0]	U.S. - OSHA - Final PELs - Ceiling Limits
Hydrochloric Acid (7647-01-0)	TLV-Ceiling	USA	"2 ppm Ceiling" As Hydrogen chloride [7647-01-0]	ACGIH - Threshold Limit Values - Ceilings (TLV-C)
Hydrochloric Acid (7647-01-0)	PEL-Ceiling	USA	"5 ppm Ceiling; 7 mg/m ³ Ceiling" As Hydrogen chloride [7647-01-0]	U.S. - OSHA - Final PELs - Ceiling Limits
Hydrochloric Acid (7647-01-0)	TLV-Ceiling	USA	2 ppm Ceiling	ACGIH - Threshold Limit Values - Ceilings (TLV-C)
Hydrochloric Acid (7647-01-0)	PEL-Ceiling	USA	5 ppm Ceiling; 7 mg/m ³ Ceiling	U.S. - OSHA - Final PELs - Ceiling Limits
Hydrochloric Acid (7647-01-0)	TLV-Ceiling	USA	"2 ppm Ceiling" As Hydrogen chloride [7647-01-0]	ACGIH - Threshold Limit Values - Ceilings (TLV-C)
Hydrochloric Acid (7647-01-0)	PEL-Ceiling	USA	"5 ppm Ceiling; 7 mg/m ³ Ceiling" As Hydrogen chloride [7647-01-0]	U.S. - OSHA - Final PELs - Ceiling Limits
Hydrochloric Acid (7647-01-0)	TLV-Ceiling	USA	"2 ppm Ceiling" As Hydrogen chloride [7647-01-0]	ACGIH - Threshold Limit Values - Ceilings (TLV-C)
Hydrochloric Acid (7647-01-0)	PEL-Ceiling	USA	"5 ppm Ceiling; 7 mg/m ³ Ceiling" As Hydrogen chloride [7647-01-0]	U.S. - OSHA - Final PELs - Ceiling Limits
Hydrochloric Acid (7647-01-0)	PEL-Ceiling	USA	"5 ppm Ceiling; 7 mg/m ³ Ceiling" As Hydrogen chloride [7647-01-0]	U.S. - OSHA - Final PELs - Ceiling Limits
Hydrochloric Acid (7647-01-0)	TLV-Ceiling	USA	"2 ppm Ceiling" As Hydrogen chloride [7647-01-0]	ACGIH - Threshold Limit Values - Ceilings (TLV-C)

8.2. Exposure Controls

Engineering Controls: A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limit.

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Respiratory Protection: Normal room ventilation is adequate. If the exposure limit is exceeded, a full facepiece respirator with organic vapor cartridge may be worn.

Skin Protection: Wear protective gloves and eye protection. Chemical resistant gloves.

Eye Protection: Wear protective gloves and eye protection. Safety glasses or goggles.

8.3. Personal Protective Equipment

Wear protective gloves and eye protection. Normal room ventilation is adequate. If the exposure limit is exceeded, a full facepiece respirator with organic vapor cartridge may be worn. Chemical resistant gloves. Safety glasses or goggles.

SECTION 9: Physical and Chemical Properties

9.1. Basic Physical and Chemical Properties

Appearance: Yellow-green liquid

Physical State: Liquid

Odor: Data not available.

Odor Threshold: Data not available.

pH: Data not available.

Melting/Freezing Point: Data not available.

Initial Boiling Point/Range: Approximately 110°C - Approximately 110°C

Flash Point: Approximately 40°C

Evaporation Rate: Data not available.

Flammability: Data not available.

Flammability/Explosive Limits: Data not available.

Vapor Pressure: Data not available.

Vapor Density: Data not available.

Relative Density: 1.0

Solubility: Miscible

Partition Coefficient: Data not available.

Auto-Ignition Temperature: Data not available.

Decomposition Temperature: Data not available.

Viscosity: Data not available.

Explosive Properties: Data not available.

Oxidizing Properties: Data not available.

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SECTION 10: Stability and Reactivity

10.1. Reactivity and Chemical Stability

Stable under normal conditions of use and storage.

10.2. Possibility of Hazardous Reactions

Data not available.

10.3. Conditions to Avoid and Incompatible Materials

Keep away from heat, sparks and open flame. No smoking. Keep container tightly closed. Keep only in original container. Strong oxidizing agents such as Nitrates, Perchlorates or Sulfuric Acid, heat, sparks, open flame. Will attack some forms of plastics, rubber and coatings. May react with metallic aluminum and generate hydrogen gas.

10.4. Hazardous Decomposition Products

Will not occur.

SECTION 11: Toxicological Information

11.1. Information on Toxicological Effects

Acute Toxicity - Oral Exposure:

Not applicable.

Acute Toxicity - Dermal Exposure:

Not applicable.

Acute Toxicity - Inhalation Exposure:

Not applicable.

Acute Toxicity - Other Information:

LD50, Oral, Rat: (n-Butanol) 790 mg/kg, liver, kidney, blood effects noted. LD50, Oral, Rabbit (Hydrochloric Acid) 900 mg/kg, LDLo, Oral, Rat: (p-Dimethylaminobenzaldehyde) 500 mg/kg, details of toxic effects not reported other than lethal dose value.

Skin Corrosion and Irritation:

Causes severe skin burns and eye damage. Do not breathe fumes, mist, vapors, or spray. Wash arms, hands and face thoroughly after handling. Wear protective gloves and eye protection. IF SWALLOWED: rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Wash contaminated clothing before reuse. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or physician. Specific treatment (Wash areas of contact with water.). IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

Serious Eye Damage and Irritation:

Causes serious eye damage. Wear protective gloves and eye protection. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician.

Respiratory Sensitization:

Not applicable.

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Skin Sensitization:

May cause an allergic skin reaction. Avoid breathing fumes, mist, vapors, or spray. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves and eye protection. IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical attention. Specific treatment (Wash areas of contact with water.). Wash contaminated clothing before reuse. Dispose of contents in accordance with local, state, federal and international regulations.

Germ Cell Mutagenicity:

Not applicable.

Carcinogenicity:

Not applicable.

Reproductive Toxicity:

Not applicable.

Specific Target Organ Toxicity from Single Exposure:

Not applicable.

Specific Target Organ Toxicity from Repeated Exposure:

Not applicable.

Aspiration Hazard:

Not applicable.

Additional Toxicology Information:

Data not available.

SECTION 12: Ecological Information

12.1. Ecotoxicity

Not applicable.

12.2. Persistence and Degradability

Data not available.

12.3. Bioaccumulative Potential

Data not available.

12.4. Mobility in Soil

Data not available.

12.5. Other Adverse Ecological Effects

Data not available.

SECTION 13: Disposal Considerations

13.1. Waste Treatment Methods

Data not available.

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SECTION 14: Transportation Information

14.1. Transportation by Land-Department of Transportation (DOT, United States of America)

Sizes: 4 L, 120 mL, 500 mL

UN Number: UN2920

Proper Shipping Name: Corrosive liquid, flammable, n.o.s. (Hydrochloric Acid, Butanol)

Hazard Class: 8 (3)

Packing Group: II

Hazard Label(s):



14.2. Transportation by Air - International Air Transport Association (IATA)

Sizes: 4 L, 120 mL, 500 mL

UN Number: UN2920

Proper Shipping Name: Corrosive liquid, flammable, n.o.s. (Hydrochloric Acid, Butanol)

Hazard Class: 8 (3)

Packing Group: II

Hazard Label(s):



14.3 Transportation of Dangerous Goods (TDG, Canada)

Sizes: 4 L, 120 mL, 500 mL

UN Number: UN2920

Proper Shipping Name: CORROSIVE LIQUID, FLAMMABLE, N.O.S. (hydrochloric acid, butanol)

Hazard Class: 8 (3)

Packing Group: II

Hazard Label(s):



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SECTION 15: Regulatory Information

15.1. Occupational Safety and Health Administration (OSHA) Hazards

Not listed.

15.2. Superfund Amendments and Reauthorization Act (SARA) 302 Extremely Hazardous Substances

Hydrochloric Acid (CAS # 7647-01-0): "500 lb TPQ (gas only)" As Hydrogen chloride [7647-01-0]

Hydrochloric Acid (CAS # 7647-01-0): "5000 lb EPCRA RQ (gas only)" As Hydrogen chloride [7647-01-0]

Hydrochloric Acid (CAS # 7647-01-0): 500 lb TPQ (gas only)

Hydrochloric Acid (CAS # 7647-01-0): 5000 lb EPCRA RQ (gas only)

15.3. Superfund Amendments and Reauthorization Act (SARA) 311/312 Hazardous Chemicals

1-Butanol (CAS # 71-36-3): "5000 lb final RQ

1-Butanol (CAS # 71-36-3): 2270 kg final RQ

1-Butanol (CAS # 71-36-3): 2270 kg final RQ" As 1-Butanol [71-36-3]

1-Butanol (CAS # 71-36-3): 5000 lb final RQ

Hydrochloric Acid (CAS # 7647-01-0): "5000 lb final RQ

Hydrochloric Acid (CAS # 7647-01-0): 2270 kg final RQ

Hydrochloric Acid (CAS # 7647-01-0): 2270 kg final RQ" As Hydrochloric acid [7647-01-0]

Hydrochloric Acid (CAS # 7647-01-0): 5000 lb final RQ

15.4. Superfund Amendments and Reauthorization Act (SARA) 313 Toxic Release Inventory (TRI)

1-Butanol (CAS # 71-36-3): "1.0 % de minimis concentration" As n-Butyl alcohol [71-36-3]

1-Butanol (CAS # 71-36-3): "100 lb RT" As Lead compounds [RR-00630-4]

1-Butanol (CAS # 71-36-3): "not eligible for the de minimis exemption" As Lead compounds [RR-00630-4]

1-Butanol (CAS # 71-36-3): 1.0 % de minimis concentration

Hydrochloric Acid (CAS # 7647-01-0): "1.0 % de minimis concentration (acid aerosols including mists, vapors, gas, fog, and other airborne forms of any particle size)" As Hydrochloric acid [7647-01-0]

Hydrochloric Acid (CAS # 7647-01-0): 1.0 % de minimis concentration (acid aerosols including mists, vapors, gas, fog, and other airborne forms of any particle size)

15.5. Massachusetts Right-to-Know Substance List

1-Butanol (CAS # 71-36-3): "Present" As 1-Butanol [71-36-3]

1-Butanol (CAS # 71-36-3): Present

Hydrochloric Acid (CAS # 7647-01-0): "Extraordinarily hazardous" As Hydrochloric acid [7647-01-0]

Hydrochloric Acid (CAS # 7647-01-0): Extraordinarily hazardous

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15.6. Pennsylvania Right-to-Know Hazardous Substances

1-Butanol (CAS # 71-36-3): "Environmental hazard" As 1-Butanol [71-36-3]
1-Butanol (CAS # 71-36-3): "Environmental hazard" As Lead compounds [RR-00630-4]
1-Butanol (CAS # 71-36-3): Environmental hazard
Hydrochloric Acid (CAS # 7647-01-0): "Environmental hazard" As Hydrochloric acid [7647-01-0]
Hydrochloric Acid (CAS # 7647-01-0): Environmental hazard
Water (CAS # 7732-18-5): "Present" As Ethyl alcohol and water [RR-00802-6]
Water (CAS # 7732-18-5): Present

15.7. New Jersey Worker and Community Right-to-Know Components

1-Butanol (CAS # 71-36-3): "carcinogen" As Lead compounds [RR-00630-4]
1-Butanol (CAS # 71-36-3): "flammable - third degree" As n-Butyl alcohol [71-36-3]
1-Butanol (CAS # 71-36-3): "SN 1330 500 lb TPQ" As n-Butyl alcohol [71-36-3]
1-Butanol (CAS # 71-36-3): "sn 1330" As n-Butyl alcohol [71-36-3]
1-Butanol (CAS # 71-36-3): "SN 2266 500 lb TPQ (Category Code N420. Includes any unique chemical substance that contains the named metal as part of that chemical structure)" As Lead compounds [RR-00630-4]
1-Butanol (CAS # 71-36-3): "sn 2266" As Lead compounds [RR-00630-4]
1-Butanol (CAS # 71-36-3): flammable - third degree
1-Butanol (CAS # 71-36-3): sn 1330
1-Butanol (CAS # 71-36-3): SN 1330 500 lb TPQ
Hydrochloric Acid (CAS # 7647-01-0): "corrosive" As Hydrogen chloride [7647-01-0]
Hydrochloric Acid (CAS # 7647-01-0): "SN 1012 500 lb TPQ"
Hydrochloric Acid (CAS # 7647-01-0): "sn 1012" As Hydrogen chloride [7647-01-0]
Hydrochloric Acid (CAS # 7647-01-0): corrosive
Hydrochloric Acid (CAS # 7647-01-0): sn 1012
Hydrochloric Acid (CAS # 7647-01-0): SN 1012 500 lb TPQ
Hydrochloric Acid (CAS # 7647-01-0): SN 2909 500 lb TPQ (gas only)
Hydrochloric Acid (CAS # 7647-01-0): SN 2909 500 lb TPQ (gas only)" As Hydrogen chloride [7647-01-0]

15.8. California Proposition 65

1-Butanol (CAS # 71-36-3): "carcinogen, 10/1/1992" As Lead compounds [RR-00630-4]

15.9. Canada Domestic Substances List / Non-Domestic Substances List (DSL/NDSL)

p-Dimethylaminobenzaldehyde (CAS # 100-10-7): Present (DSL)
1-Butanol (CAS # 71-36-3): "Present" As n-Butyl alcohol [71-36-3] (DSL)
1-Butanol (CAS # 71-36-3): Present (DSL)
Hydrochloric Acid (CAS # 7647-01-0): "Present" As Hydrogen chloride [7647-01-0] (DSL)
Hydrochloric Acid (CAS # 7647-01-0): Present (DSL)
Water (CAS # 7732-18-5): "Present" As Water [7732-18-5] (DSL)
Water (CAS # 7732-18-5): Present (DSL)

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15.10. United States of America Toxic Substances Control Act (TSCA) List

All components of this solution are listed as active on the TSCA Inventory or are mixtures (hydrates) of active items listed on the TSCA Inventory.

p-Dimethylaminobenzaldehyde (CAS # 100-10-7): Present (ACTIVE)
1-Butanol (CAS # 71-36-3): "Present (ACTIVE)" As 1-Butanol [71-36-3]
1-Butanol (CAS # 71-36-3): Present (ACTIVE)
Hydrochloric Acid (CAS # 7647-01-0): "Present (ACTIVE)" As Hydrochloric acid [7647-01-0]
Hydrochloric Acid (CAS # 7647-01-0): Present (ACTIVE)
Water (CAS # 7732-18-5): "Present [XU] (ACTIVE)" As Water [7732-18-5]
Water (CAS # 7732-18-5): Present [XU] (ACTIVE)

15.11. European Inventory of Existing Commercial Chemical Substances (EINECS), European List of Notified Chemical Substances (ELINCS), and No Longer Polymers (NLP)

p-Dimethylaminobenzaldehyde (CAS # 100-10-7): 202-819-0
1-Butanol (CAS # 71-36-3): "200-751-6" As Butan-1-ol [71-36-3]
1-Butanol (CAS # 71-36-3): 200-751-6
Hydrochloric Acid (CAS # 7647-01-0): "231-595-7" As Hydrogen chloride [7647-01-0]
Hydrochloric Acid (CAS # 7647-01-0): 231-595-7
Water (CAS # 7732-18-5): "231-791-2" As Water [7732-18-5]
Water (CAS # 7732-18-5): 231-791-2

SECTION 16: Other Information

16.1. Full Text of Hazard Statements and Precautionary Statements

Flammable liquid and vapor. May be corrosive to metals. Causes severe skin burns and eye damage. May cause an allergic skin reaction.

Keep away from heat, sparks and open flame. No smoking. Keep container tightly closed. Keep only in original container. Ground container and receiving equipment. Use explosion-proof equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe fumes, mist, vapors, or spray. Wash arms, hands and face thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves and eye protection.

IF SWALLOWED: rinse mouth. Do NOT induce vomiting. IF ON SKIN: Wash with plenty of soap and water. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician. Specific treatment (Wash areas of contact with water.). If skin irritation occurs: Get medical attention. Wash contaminated clothing before reuse. In case of fire: Use dry chemical, foam or carbon dioxide to extinguish. Absorb spillage to prevent material damage.

Store in a well-ventilated place. Keep cool. Store locked up. Store in corrosive resistant container with a resistant inner liner.

Dispose of contents in accordance with local, state, federal and international regulations.

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16.2. Miscellaneous Hazard Classes

Canadian Carcinogenicity Hazard Class: Not Applicable.

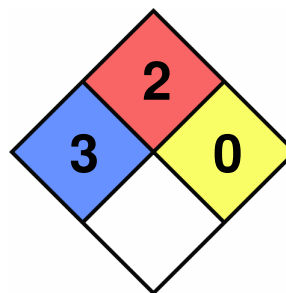
Physical Hazards Not Otherwise Classified (PHNOC): Not Applicable.

Health Hazards Not Otherwise Classified (HHNOC): Not Applicable.

Biohazardous Infectious Materials Hazard Class: Not Applicable.

16.3. National Fire Protection Association (NFPA) Rating

Health: 3
Flammability: 2
Reactivity: 0
Special Hazard:



16.4. Document Revision

Last Revision Date: 2025-04-02

DISCLAIMER

When handled properly by qualified personnel, the product described herein does not present a significant health or safety hazard. Alteration of its characteristics by concentration, evaporation, addition of other substances, or other means may present hazards not specifically addressed herein and which must be evaluated by the user. The information furnished herein is believed to be accurate and represents the best data currently available to us. No warranty, expressed or implied, is made and RICCA CHEMICAL COMPANY assumes no legal responsibility or liability whatsoever resulting from its use.