ESSENTIAL CHEMISTRY. INNOVATIVE SOLUTIONS.

SAFETY DATA SHEET

Print Date: March 8, 2017

Section 1: Product & Company Information

Product Identifier: **Denatured Alcohol, B, 200 proof**

Other Means of Identification
Product Number: No data available.

Recommended Use and Restrictions on Use
Recommended Use: For excipient use only, Manufacture of pharmaceutical mixtures, Other consumer uses
Restrictions on Use : Alcoholic beverages

Manufacturer / Importer / Supplier / Distributor Information

Company Name: CORECHEM Inc.
Address: 4320 Greenway Drive
Knoxville, TN 37918
USA

Information Telephone Number: 1-865-524-4239
Fax Number: 1-865-524-3375
Website: www.corecheminc.com
Contact Person: Regulatory Manager
E-mail: regulatory@corecheminc.com

Emergency Phone Number: Chemtrec® 1-800-424-9300 / Outside USA 1-703-527-3887 *(monitored 24 hours/day)*

Section 2: Hazards Identification

GHS Hazard Classification(s)
In accordance with OSHA Hazard Communication Standard 29 CFR 1910.1200 (HazCom 2012).

Physical Hazard(s)
Flammable, Liquids - 2

Health Hazard(s)
(Corrosion)Damage/Irritation, Eye - 2A
Toxic to Reproduction - 1
Toxic to Reproduction, Effects on or via lactation - (additional)
Specific Target Organ Toxicity (STOT), Single exposure - 1
Specific Target Organ Toxicity (STOT)-Respiratory Irritation, Single exposure - 3
Specific Target Organ Toxicity (STOT)-CNS, Single exposure - 3

Environmental Hazard(s)
Not classified.

Label Elements
Signal Word
DANGER

Hazard Symbol(s)

Hazard Statement(s)
H225: Highly flammable liquid and vapor.
H319: Causes serious eye Irritation.
H335+H336: May cause respiratory irritation. May cause drowsiness or dizziness.
H360: May damage fertility or the unborn child.
H362: May cause harm to breastfed children.
H370: Causes damage to organs.

Precautionary Statements
General
Not applicable.

Prevention
P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P210: Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P223: Keep away from any possible contact with water, because of violent reaction and possible flash fire.
P240: Ground/bond container and receiving equipment.
P241: Use explosion-proof electrical/ventilating/lighting/equipment.
P242: Use only non-sparking tools.

P243: Take precautionary measures against static discharge.
P260: Do not breathe dust/fume/gas/mist/vapors/spray.
P261: Avoid breathing dust/fume/gas/mist/vapors/spray.
P263: Avoid contact during pregnancy/while nursing.
P264: Wash face, hands and any exposed 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.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P281: Use personal protective equipment as required.

Response

P303 + P361 + P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340: IF INHALED: Remove 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.
P307 + P311: IF exposed: Call a POISON CENTER or doctor/physician.
P308 + P313: IF exposed or concerned: Get medical advice/attention.
P312: Call a POISON CENTER or doctor/physician if you feel unwell.
P331: Do NOT induce vomiting.
P337 + P313: If eye irritation persists: Get medical advice/attention.
P370 + P378: In case of fire: Use suitable extinguishing media for extinction.

Storage

P403 + P233: Store in a well-ventilated place. Keep container tightly closed.
P403 + P235: Store in a well-ventilated place. Keep cool.
P405: Store locked up.

Disposal

P501: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Hazard(s) not otherwise classified (HNOC)

Prolonged or repeated contact may cause skin to become dry or cracked.

Section 3: Composition/Information on Ingredients

Mixture

Chemical Identity [2]	Common Name/Synonym(s)	CAS # [3]	Weight %	Impurity or Stabilizing Additive
Ethyl Alcohol	-	64-17-5	85.8%	No
Isopropyl Alcohol	IPA	67-63-0	8.8%	No
Methyl Alcohol	Methanol	67-56-1	4.5%	No
Methyl Isobutyl Ketone	MIBK	108-10-1	1.0%	No

1. Information regarding the composition and the percent ranges of the mixtures ingredients are not presented as it Confidential Business Information (CBI). Where a medical emergency exists (as determined by medical professional), timely disclosure of CBI is assured. The information omitted pertains to only the names of the substances and the concentration in the mixture (product) and can only be requested by a doctor/physician or Local/State/Provincial or Federal Authority.
2. Non-hazardous ingredients are not presented as to protect the proprietary formula of the product.
3. "—"Indicates ingredient is a mixture and contains multiple ingredients or may have no identifying CAS number.

Section 4: First-Aid Measures

General Information

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Wash contaminated clothing before reuse.

Inhalation

Remove person to fresh air. If signs/symptoms continue, get medical attention. Give oxygen or artificial respiration as needed.

Skin Contact

Immediately flush affected area with plenty of water while removing contaminated clothing. Wash contaminated clothing before reuse. If irritation persists, get medical attention.

Eye Contact

Thoroughly flush the eyes with large amounts of clean low-pressure water for at least 15 minutes, occasionally lifting the upper and lower eyelids. If irritation persists, seek medical attention. Remove contact lenses. Do not use eye ointment unless directed to by a physician.

Ingestion

Do not induce vomiting. Risk of damage to lungs exceeds poisoning risk. Drink plenty of water. If vomiting does occur, have victim lean forward to reduce risk of aspiration. If victim is drowsy or unconscious, place on the left side with head down. Never give anything by mouth to an unconscious person. Obtain emergency room treatment immediately.

Most important symptoms/effects, acute and delayed

Symptoms

Ingestion of the liquid or exposure to high airborne concentrations can cause central nervous system (CNS) effects ranging from excitation, dizziness, drowsiness, and headache to deep anesthesia, respiratory arrest, and death in cases of severe over-exposure. Repeated or prolonged contact with skin may cause defatting and drying of the skin which may result in dermatitis.

Indication of immediate medical attention and special treatment needed

Hazards

No data available.

Treatment

Treat symptomatically. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient. There is no specific antidote. Gastric lavage can be used if done shortly after ingestion. GI decontamination with charcoal is not effective unless other toxic co-ingestants are involved.

Section 5: Fire-Fighting Measures

General Fire Hazards

No data available.

Suitable (and Unsuitable) Extinguishing Media

Suitable Extinguishing Media

Extinguishing powder, alcohol resistant foam, carbon dioxide, water fog

Unsuitable Extinguishing Media

No data available.

Specific Hazards Arising from the Chemical

Extremely flammable well below ambient temperatures. Vapor forms explosive mixture with air and may cause a flash fire.

Special Protective Equipment and Precautions for Firefighters

Special Fire-Fighting Equipment Procedures

Eliminate all sources of ignition. Prevent entry into waterways, sewers, basements or confined areas. Ethanol vapors are heavier than air and may travel a considerable distance to a source of ignition and flash back. Alcohols burn with a pale blue flame which may be extremely hard to see under normal lighting conditions. Personnel may only be able to feel the heat of the fire without seeing flames. Extreme caution must be exercised in fighting alcohol fires. When exposed to ignition source in air, vapors can burn in open or explode if confined. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Heat may build enough pressure to rupture closed containers/spreading fire/increasing risk of burns/injuries. Cool containers with flooding quantities of water until well after fire is out. Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank. Always stay away from tanks engulfed in fire. Move containers from fire area if it can be done without risk. Sustained fire attack on vessels may result in a Boiling Liquid Expanding Vapor Explosion (BLEVE). Prevent fire extinguishing water from contaminating surface water or the ground water system. When fighting a fire, notify environmental authorities if liquid enters sewers or public waters. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Special Protective Equipment for Fire-Fighters

As in any fire, wear self-contained breathing apparatus pressure-demand (OSHA/NIOSH approved or equivalent) and full protective gear.

Section 6: Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures

Use personal protective equipment. See Section 8 of the SDS for Personal Protective Equipment. Keep unauthorized personnel away. Ventilate closed spaces before entering them. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Evacuate area.

Methods and Materials for Containment and Clean-Up

Highly flammable liquid and vapor. Eliminate all sources of ignition. All equipment used when handling this product must be grounded. Do not touch or walk through spilled material. Stop leak if you can do it without risk. Prevent entry into waterways, sewers, basements or confined areas. A vapor suppressing foam may be used to reduce vapors. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Use clean non-sparking tools to collect absorbed material. For large spills: Contain spill with dike to prevent entry into sewers or waterways. Water spray may reduce vapor; but may not prevent ignition in closed spaces.

Notification Procedures

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

Environmental Precautions

If necessary, all contaminated waste water must be treated in a municipal or industrial wastewater treatment plant before release to surface water. Chemical removal by air and water pollution control devices must meet the minimum efficiency requirements needed to reduce exposures to an acceptable level. The discharge of treatment plant effluent to rivers and oceans must achieve the dilution ratio needed to reduce exposures to an acceptable level. The size and capacity of wastewater treatment plants must meet the minimum requirements needed to reduce exposures to an acceptable level. Waste management practices such as incineration, recycling, reuse must be enforced as needed to reduce exposures to an acceptable level. External treatment and disposal of waste should comply with applicable local and/or national regulations. The maximum allowable site tonnage and the days of use should be below the number needed to maintain exposures at an acceptable level.

Section 7: Handling and Storage

Precautions for Safe Handling

Wear recommended personal protective equipment. Eliminate all sources of ignition. Use only in area provided with appropriate exhaust ventilation. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Use only non-sparking tools. Avoid contact with incompatible agents. Open and handle container with care. Keep in properly labeled containers. Metal containers involved in the transfer of this material should be grounded and bonded. Keep containers tightly closed and in a well-ventilated place. Store away from oxidizers and other combustible material by a distance of at least 20 feet. Metal containers used to store this material should be grounded. Ensure all equipment is electrically grounded before beginning transfer operations. Handle empty containers with care; vapor/residue may be extremely flammable. Do not pressurize or expose empty containers to open flame, sparks, or heat. Isolate, vent, drain, wash and purge systems or equipment before maintenance or repair. Observe precautions pertaining to confined space entry.

Conditions for Safe Storage, including any Incompatibilities

Flammable materials should be stored in a separate safety storage cabinet or room. Store only in tightly closed, properly vented containers away from heat, sparks, open flame and strong oxidizing agents. Store this product in a dry location where it can be protected from the elements. Keep in a well-ventilated place.

Metal containers involved in the transfer of this material should be grounded and bonded. Keep containers tightly closed and in a well-ventilated place. Store away from oxidizers and other combustible material by a distance of at least 20 feet. Metal containers used to store this material should be grounded. Ensure that all relevant regulations regarding explosive atmosphere, and handling and storage facilities of flammable products are followed. Store closed drums with bung in up position.

Section 8: Exposure Controls/Personal Protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	Type	Value	Source
Ethyl Alcohol	STEL	1,000 ppm	US. ACGIH Threshold Limit Values
Ethyl Alcohol	TWA	1,000 ppm 1,900 mg/m^3	US OSHA Table Z-1
Isopropyl Alcohol	STEL	400 ppm	US. ACGIH Threshold Limit Values
Isopropyl Alcohol	TWA	200 ppm	US. ACGIH Threshold Limit Values
Isopropyl Alcohol	TWA	400 ppm 980 mg/m^3	US OSHA Table Z-1
Methyl Alcohol	STEL	250 ppm	US. ACGIH Threshold Limit Values
Methyl Alcohol	TWA	200 ppm	US. ACGIH Threshold Limit Values
Methyl Alcohol	TWA	200 ppm 260 mg/m^3	US OSHA Table Z-1
Methyl Isobutyl Ketone	STEL	75 ppm	US. ACGIH Threshold Limit Values
Methyl Isobutyl Ketone	TWA	20 ppm	US. ACGIH Threshold Limit Values
Methyl Isobutyl Ketone	TWA	100 ppm 410 mg/m^3	US OSHA Table Z-1

Biological Limit Values

Chemical Identity	CAS #	Parameter	Value	Biological Specimen	Source
Isopropyl Alcohol	67-63-0	Acetone	40 mg/l	Urine	ACGIH – Biological Exposure Indices (BEI)
	Remarks: Sampling Time: End of shift at end of work week				
Methyl Alcohol	67-56-1	Methanol	15 mg/l	Urine	ACGIH – Biological Exposure Indices (BEI)
	Remarks: Sampling Time: End of shift				
Methyl Isobutyl Ketone	108-10-1	MIBK	1 mg/l	Urine	ACGIH – Biological Exposure Indices (BEI)
	Remarks: Sampling Time: End of shift				

Appropriate Engineering Controls

General room or local exhaust ventilation is usually required to meet exposure limit(s). Electrical equipment should be grounded and conform to applicable electrical code.

Individual protection measures, such as personal protective equipment (PPE)

General Information

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. An eye wash and safety shower must be available in the immediate work area. Use explosion-proof ventilation equipment.

Eye/Face Protection

Wear safety glasses with side shields.

Skin Protection

Hand Protection

Wear appropriate chemical resistant gloves.

Other

Wear appropriate chemical resistant clothing.

Respiratory Protection

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Air-purifying respirator with an appropriate, government approved (where applicable), air-purifying filter, cartridge or canister. Contact health and safety professional or manufacturer for specific information

Hygiene Measures

When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated footwear that cannot be cleaned. Wash hands before breaks and immediately after handling the product. Wash contaminated clothing before reuse. Avoid contact with eyes, skin, and clothing.

Section 9: Physical and Chemical Properties

Appearance:

Physical State: Liquid

Color: Colorless

Odor: Sweet. Alcohol-like.

Odor Threshold: No data available.

pH: No data available.

Melting Point/Freezing Point: -114.1 °C / -173.4 °F

Initial Boiling Point and Boiling Range: 78.5 °C / 173.3 °F

Flash Point: 13 – 16 °C / 55 – 61 °F (ASTM D 56)

Evaporation Rate (butyl acetate=1)**:**	No data available.
Flammability (solid, gas):	Not applicable.
Upper/Lower Limit on Flammability or Explosive Limits	
Flammability Limit – Upper:	No data available.
Flammability Limit – Lower:	No data available.
Explosive Limit – Upper:	19 vol%
Explosive Limit – Lower:	3.3 vol%
Vapor Pressure:	59.45 hPa (44.59 mm Hg) at 68 ˚F (20 ˚C)
Vapor Density (air =1)**:**	1.6
Relative Density (water=1)**:**	No data available.
Solubility(ies):	
Solubility in water:	Completely Soluble
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	Log Pow: -0.35 at 68 ˚F (20 ˚C)
Auto-Ignition Temperature:	363 °C / 685 °F at 1,013 hPa (760 mm Hg)
Decomposition Temperature:	No data available.
Viscosity:	No data available.

Other Information:

Molecular Weight:	No data available.
Formula:	No data available.

Section 10: Stability and Reactivity

Reactivity
Will not occur.

Chemical Stability
Material is stable under normal conditions.

Possibility of Hazardous Reactions
Not expected to occur.

Conditions to Avoid
Avoid contact with strong oxidizers, excessive heat, sparks, or open flame.

Incompatible Materials
Contact with acetyl chloride or other oxidizing agents may result in a violent reaction.

Hazardous Decomposition Products
Not expected to decompose under normal conditions.

Section 11: Toxicological Information

Information on routes of exposure

Ingestion: Short term overexposure may cause drunkenness, depression of the central nervous system and death.
Inhalation: Short term overexposure may cause irritation of eyes, nose, and throat and central nervous system (CNS) effects such as headache, dizziness, drowsiness, and an inability to concentrate.
Skin Contact: No data available.
Eye Contact: No data available.

Information on Toxicological Effects

Acute Toxicity (List all possible routes of exposure)

Oral
LD50 (Rat): 2,382 mg/kg

Dermal
LD50 (Rabbit): 2,848 mg/kg

Inhalation
LC50 (Rat): 33.32 mg/l

Repeated Dose Toxicity
No data available.

Skin Corrosion/Irritation
No classified.

Serious Eye Damage/Eye Irritation
Causes serious eye irritation.

Respiratory/Skin Sensitization
Not classified.

Carcinogenicity

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans
Group 1, Carcinogenic to humans. (Ethyl Alcohol)

Group 2B, Probably carcinogenic to humans. (Methyl Isobutyl Ketone)

US. National Toxicology Program (NTP) Report on Carcinogens

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

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.

Germ Cell Mutagenicity

In Vitro

Not classified.

In Vivo

Not classified.

Reproductive Toxicity

May cause harm to breast-fed children.

Ethanol possesses properties that indicate a lactation hazard for human health but these are manifest only at doses associated with consumption of alcoholic beverages. In the context of an industrial chemical, these hazards do not warrant concern as these are not likely to result from the manufacture and use of ethanol and ethanol containing products.

May damage the unborn child.

Ethanol possesses properties that indicate a developmental hazard for human health but these are manifest only at doses associated with consumption of alcoholic beverages. In the context of an industrial chemical, these hazards do not warrant concern as these are not likely to result from the manufacture and use of ethanol and ethanol containing products.

Specific Target Organ Toxicity – Single Exposure

Causes damage to organs.

Target Organs: Eyes, Blood, Central Nervous System

May cause respiratory irritation, May cause drowsiness or dizziness.

Target Organs: Respiratory System, Central Nervous System

Specific Target Organ Toxicity – Repeated Exposure

Repeated exposure to high oral doses may damage the liver.

Aspiration Hazard

Not classified.

Other Effects

No data available.

Section 12: Ecological Information

Ecotoxicity

Acute Hazards to the Aquatic Environment

Fish

No data available.

Aquatic Invertebrates

No data available.

Toxicity to Aquatic Plants

No data available.

Chronic Hazards to the Aquatic Environment

Fish

No data available.

Aquatic Invertebrates

No data available.

Toxicity to Aquatic Plants

No data available.

Persistence and Degradability

Biodegradation

Expected to be readily biodegradable.

BOD/COD Ratio

No data available.

Bioaccumulative Potential

Bioconcentration Factor (BCF)

No data available on bioaccumulation.

Partition Coefficient n-octanol / water (log Kow)

No data available.

Mobility in Soil

No data available.

Other Adverse Effects

No data available.

Section 13: Disposal Considerations

Disposal Instructions

Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

Contaminated Packaging

Handle contaminated packages in the same way as the substance itself. Emptied containers may retain hazardous residue and explosive vapors. Keep away from heat, sparks, and flames. Do not cut, puncture, or weld on or near this container. Follow label warnings until container is thoroughly cleaned or destroyed.

Section 14: Transportation Information

US Department of Transportation (DOT)

UN Number:	UN1170
UN Proper Shipping Name:	Ethanol Solutions
Technical Name:	-
Hazard Class :	3
Subsidiary Hazard Risk:	-
Packing Group:	II
DOT Label/Placard Exemptions:	Not determined
Special Provisions:	24, IB2, T4, TP1
Packaging Exceptions:	49CFR 173.150, 4b
Packaging Non-Bulk:	49CFR 173.202
Packaging Bulk:	49CFR 173.242
Reportable Quantity (RQ):	-
Marine Pollutant:	No
Poison Inhalation Hazard:	No
Special precautions for user:	Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.
Emergency Response Guidebook (ERG) #:	127

Important Note: Shipping descriptions may vary based on mode of transport, quantities, package size, and/or origin and destination. Consult your company's Hazardous Materials/Dangerous Goods expert for information specific to your situation.

Section 15: Regulatory Information

US Federal Regulations

Toxic Substance Control Act (TSCA), Chemical Substance Inventory, Section 8(b)

This product or ingredient(s) are listed on the TSCA inventory. Any impurities present in this product are exempt from listing.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Hazardous Substance List (40 CFR 302.4)

The following chemical(s) in this material are subject to reporting levels established by CERCLA:

Methyl Alcohol (CAS# 67-56-1)
Methyl Isobutyl Ketone (CAS# 108-10-1)

Clean Air Act (CAA), Section 112(r)

No chemical(s) in this material are subject to the reporting requirements of CAA.

Emergency Planning and Community Right-To-Know Act (EPCRA)

EPCRA 302 Extremely Hazardous Substance

No chemical(s) in this material are subject to the reporting requirements of SARA Title III, Section 302.

EPCRA 304 Emergency Response Notification

No chemical(s) in this material are subject to the reporting requirements of SARA Title III, Section 304.

EPCRA 311/312 Emergency and Hazardous Materials Reporting

Fire Hazard:	Yes
Sudden Release of Pressure:	No
Reactive:	No
Acute (Immediate) Health Hazard:	Yes
Chronic (Delayed) Health Hazard:	Yes

EPCRA 313 Toxic Chemical Release Inventory (TRI) Reporting

The following chemical(s) in this material are subject to reporting levels established by SARA Title III, Section 313:

Isopropyl Alcohol (CAS# 67-63-0)
Methyl Alcohol (CAS# 67-56-1)
Methyl Isobutyl Ketone (CAS# 108-10-1)

US State Regulations

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65)

This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Important Note: Due to the changing nature of regulatory requirements, the information in this document should NOT be considered all-inclusive or authoritative. Users should make their own investigations to determine the suitability of the information for their particular purposes. International, Federal, State and Local regulations should be consulted to determine compliance with all required reporting requirements.

Section 16: Other Information

Hazardous Materials Identification System (HMIS®) Classification

Health Hazard: 2
Chronic Health Hazard: *
Flammability: 3
Physical Hazard: 0
(Hazard Rating: 0 – Minimal / 1 – Slight / 2 – Moderate / 3 – Serious / 4 – Severe)

National Fire Protection Association (NFPA 704) Rating

Health Hazard: 2
Fire Hazard: 3
Reactivity Hazard: 0
Special: N/A
(Hazard Rating: 0 – Minimal / 1 – Slight / 2 – Moderate / 3 – Serious / 4 – Severe)

Prepared By: Regulatory Manager
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Revisions: -

Key to Abbreviations and Acronyms

ATE - Acute Toxicity Estimate
BCF - Bioconcentration Factor
EC50 - Effective concentration, 50%
IDHL – Immediately Dangerous to Life and Health
Kg – Kilogram
l – Liter
lb – Pound
LC50 - Lethal Concentration, 50%
LD50 - Lethal Dose, 50%
mg - milligram
ml – milliliter
N/A – Not Applicable
N/D – Not Determined
PEL – Permissible Exposure Limit
REL – Recommended Exposure Limit
STEL – Short-term Exposure Limit
TWA - Time weighted average
ACGIH - American Conference of Industrial Hygienists
AIHA – American Industrial Hygiene Association
BEI - Biological Exposure Indices
CAS – Chemical Abstracts Service
DOT – US Department of Transportation
EPA – US Environmental Protection Agency
GHS - Globally Harmonized System of Classification and Labelling of Chemicals
IARC - International Agency for Research on Cancer
IATA - International Air Transport Association
IBC - Intermediate Bulk Container
IMDG - International Maritime Dangerous Goods
NIOSH – National Institute for Occupational Safety and Health
NTP – National Toxicology Program
OSHA – US Occupational Health and Safety Administration
SARA – US EPA Superfund Amendments and Reauthorization Act
TSCA – US EPA Toxic Substances Control Act
UN - United Nations

References

HSDB® - Hazardous Substances Data Bank

Disclaimer

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