ESSENTIAL CHEMISTRY. INNOVATIVE SOLUTIONS.

# SAFETY DATA SHEET

**Print Date:** *April 2, 2018*

## Section 1: Product & Company Information

**Product Identifier:** **Isopropyl Alcohol 99%**

**Other Means of Identification**
*Product Number:* *151010*

**Recommended Use and Restrictions on Use**
*Recommended Use:* *Use as a solvent only in industrial manufacturing processes.*
*Restrictions on Use:* *Advise in this document relates only to the product as it is originally supplied. Other derivative chemicals will have different properties and hazards. Advise should be sought on their safe handling and use.*

**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*
*Specific Target Organ Toxicity (STOT)-Respiratory Irritation, 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: May cause respiratory Irritation.*

**Precautionary Statements**
**General**
*Not applicable.*

**Prevention**
*P210: Keep away from heat/sparks/open flames/hot surfaces. No smoking.*
*P233: Keep container tightly closed.*
*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.*
*P261: Avoid breathing dust/fume/gas/mist/vapors/spray.*
*P264: Wash face, hands and any exposed skin thoroughly after handling.*
*P271: Use only outdoors or in a well-ventilated area.*
*P280: Wear protective gloves/protective clothing/eye protection/face protection.*

**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.*
*P312: Call a POISON CENTER or doctor/physician if you feel unwell.*
*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)**

*Slightly irritating to respiratory system.*
*Vapors are heavier than air. Vapors may travel across the ground and reach remote ignition sources causing a flashback fire danger.*
*This material is a static accumulator.*
*Even with proper grounding and bonding, this material can still accumulate an electrostatic charge.*
*If sufficient charge is allowed to accumulate, electrostatic discharge and ignition of flammable air vapor mixtures can occur.*
*The classification of this material is based on OSHA HCS 2012 criteria.*

## Section 3: Composition/Information on Ingredients

**Substance**

| Chemical Identity[2] | Common Name/Synonym(s) | CAS #[3] | Weight% | Impurity or Stabilizing Additive |
|---|---|---|---|---|
| *Isopropyl Alcohol* | *IPA, Isopropanol, Propanol, Propyl Alcohol, Dimethyl Carbinol, Propan-2-ol* | *67-63-0* | *>= 90 - >= 100%* | *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**

*In general no treatment is necessary, however, obtain medical advice. When administering first aid, ensure that you are wearing the appropriate personal protective equipment according to the incident, injury and surroundings.*

**Inhalation**

*Remove to fresh air. If rapid recovery does not occur, transport to nearest medical facility for additional treatment.*

**Skin Contact**

*Remove contaminated clothing. Flush exposed area with water and follow by washing with soap if available. If persistent irritation occurs, obtain medical attention.*

**Eye Contact**

*Immediately flush eyes with large amounts of water for at least 15 minutes while holding eyelids open. Transport to the nearest medical facility for additional treatment.*

**Ingestion**

*If swallowed, do not induce vomiting: transport to nearest medical facility for additional treatment. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. If any of the following delayed signs and symptoms appear within the next 6 hours, transport to the nearest medical facility: fever greater than 101° F (38.3°C), shortness of breath, chest congestion or continued coughing or wheezing.*

**Most important symptoms/effects, acute and delayed**

**Symptoms**

*If material enters lungs, signs and symptoms may include coughing, choking, wheezing, difficulty in breathing, chest congestion, shortness of breath, and/or fever. Eye irritation signs and symptoms may include a burning sensation, redness, swelling, and/or blurred vision.*

**Indication of immediate medical attention and special treatment needed**

**Hazards**

*No data available.*

**Treatment**

*Potential for chemical pneumonitis. Call a doctor or poison control center for guidance.*

## Section 5: Fire-Fighting Measures

**General Fire Hazards**

*Clear fire area of all non-emergency personnel. Keep adjacent containers cool by spraying with water.*

**Suitable (and Unsuitable) Extinguishing Media**

**Suitable Extinguishing Media**

*Alcohol-resistant foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.*

**Unsuitable Extinguishing Media**

*None*

**Specific Hazards Arising from the Chemical**

*The vapor is heavier than air, spreads along the ground and distant ignition is possible. Carbon monoxide may be evolved if incomplete combustion occurs.*

**Special Protective Equipment and Precautions for Firefighters**

**Special Fire-Fighting Equipment Procedures**

*Standard procedure for chemical fires.*

**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. Proper Protective equipment including chemical resistant gloves are to be worn. Chemical resistant suit is indicated if large contact with spilled product is expected.*

## Section 6: Accidental Release Measures

**Personal Precautions, Protective Equipment and Emergency Procedures**

*Observe the relevant local and international regulations. Notify authorities if any exposure to the general public or the environment occurs or is likely to occur. Local authorities should be advised if significant spillages cannot be contained. The vapor is heavier than air, spreads along the ground and distant ignition is possible. Vapor may form an explosive mixture with air. Avoid contact with skin, eyes and clothing. Isolate hazard area and deny entry to unnecessary or unprotected personnel. Stay upwind and keep out of low areas.*

**Methods and Materials for Containment and Clean-Up**

*For large liquid spills (> 1 drum), transfer by mechanical means such as vacuum truck to a salvage tank for recovery or safe disposal. Do not flush away residues with water. Retain as contaminated waste. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove contaminated soil and dispose of safely*

*For small liquid spills (< 1 drum), transfer by mechanical means to a labeled, sealable container for product recovery or safe disposal. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely Remove contaminated soil and dispose of safely.*

*For guidance on selection of personal protective equipment see Chapter 8 of this Safety Data Sheet. For guidance on disposal of spilled material see Chapter 13 of this Safety Data Sheet. U.S. regulations may require reporting releases of this material to the environment which exceed the reportable quantity (refer to Chapter 15) to the National Response Center at (800) 424-8802.*

**Notification Procedures**

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

**Environmental Precautions**

*Shut off leaks, if possible without personal risks. Remove all possible sources of ignition in the surrounding area. Use appropriate containment to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate barriers. Attempt to disperse the vapor or to direct its flow to a safe location for example by using fog sprays. Take precautionary measures against static discharge. Ensure electrical continuity by bonding and grounding (earthing) all equipment. Ventilate contaminated area thoroughly. Monitor area with combustible gas indicator.*

## Section 7: Handling and Storage

**Precautions for Safe Handling**

*Avoid breathing of or direct contact with material. Only use in well ventilated areas. Wash thoroughly after handling. For guidance on selection of personal protective equipment see Chapter 8 of this Safety Data Sheet. Use the information in this data sheet as input to a risk assessment of local circumstances to help determine appropriate controls for safe handling, storage and disposal of this material. Ensure that all local regulations regarding handling and storage facilities are followed. Avoid contact with skin, eyes and clothing. Use local exhaust ventilation if there is risk of inhalation of vapors, mists or aerosols. Avoid strong oxidizing agents. Bulk storage tanks should be diked (bunded). Extinguish any naked flames. Do not smoke. Remove ignition sources. Avoid sparks. Electrostatic discharge may cause fire. Ensure electrical continuity by bonding and grounding (earthing) all equipment to reduce the risk. The vapors in the head space of the storage vessel may lie in the flammable/explosive range and hence may be flammable. Properly dispose of any contaminated rags or cleaning materials in order to prevent fires. Do NOT use compressed air for filling, discharging, or handling operations.*

**Conditions for Safe Storage, including any Incompatibilities**

*The vapor is heavier than air. Beware of accumulation in pits and confined spaces. Refer to section 15 for any additional specific legislation covering the packaging and storage of this product. Containers, even those that have been emptied, can contain explosive vapors. Do not cut, drill, grind, weld or perform similar operations on or near containers.*

## Section 8: Exposure Controls/Personal Protection

**Control Parameters**

**Occupational Exposure Limits**

| Chemical Identity | Type | Value | Source |
|---|---|---|---|
| *Isopropyl Alcohol* | *TWA* | *400 ppm* | *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* |

**Biological Limit Values**

*The product does not contain any relevant quantities of hazardous materials with assigned biological limit values.*

**Appropriate Engineering Controls**

*The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local circumstances. Appropriate measures include: Use sealed systems as far as possible. Adequate explosion-proof ventilation to control airborne concentrations below the exposure guidelines/limits. Local exhaust ventilation is recommended. Firewater monitors and deluge systems are recommended. Eye washes and showers for emergency use. Where material is heated, sprayed or mist formed, there is greater potential for airborne concentrations to be generated.*

*Always observe good personal hygiene measures, such as washing hands after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping. Define procedures for*

*safe handling and maintenance of controls. Educate and train workers in the hazards and control measures relevant to normal activities associated with this product. Ensure appropriate selection, testing and maintenance of equipment used to control exposure, e.g. personal protective equipment, local exhaust ventilation. Drain down system prior to equipment break-in or maintenance. Retain drain downs in sealed storage pending disposal or subsequent recycle.*

**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. Eye wash facilities and emergency shower must be available when handling this product.*

**Eye/Face Protection**

*Wear safety glasses with side shields (or goggles) and a face shield. Wear a full-face respirator, if needed.*

**Skin Protection**

**Hand Protection**

*Wear appropriate chemical resistant gloves.*

**Other**

*Wear antistatic and flame-retardant clothing if a local risk assessment deems it so. Skin protection is not required under normal conditions of use. For prolonged or repeated exposure use impervious clothing over parts of the body subject to the exposure. If repeated and/or prolonged exposures use impervious clothing over parts of the body subject to the exposure. If repeated and/or prolonged skin exposure to the substance is likely, then wear suitable gloves tested to relevant standard and provide employee skin care programs.*

**Respiratory Protection**

*If engineering controls do not maintain airborne concentrations to a level which adequately protects worker health, select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation. Check with respiratory protective equipment suppliers. Where air-filtering respirators are unsuitable ( e.g. airborne concentrations are high, risk of oxygen deficiency confined space) use appropriate positive pressure breathing apparatus. Where air filtering respirators are suitable, select an appropriate positive pressure breathing apparatus. Where air filtering respirators are suitable, select an appropriate combination of mask and filter. If air-filtering respirators are suitable for condition of use: select a filter suitable for organic gases and vapors. >65 C (149 F)*

**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:* | *Clear* |
| **Odor:** | *Characteristic* |
| **Odor Threshold:** | *Not determined.* |
| **pH:** | *Not applicable.* |
| **Melting Point/Freezing Point:** | *-88 °C / -126 °F* |
| **Initial Boiling Point and Boiling Range:** | *82 - 83 °C / 180 - 181 °F* |
| **Flash Point:** | *12 °C / 54 °F Method: Abel* |
| **Evaporation Rate** *(butyl acetate=1)*: | *1.5 Method: ASTM D 3539* |
| **Flammability (solid, gas):** | *No data available.* |
| **Upper/Lower Limit on Flammability or Explosive Limits** | |
| *Flammability Limit – Upper:* | *2 %(V)* |
| *Flammability Limit – Lower:* | *12 %(V)* |
| *Explosive Limit – Upper:* | *Not applicable.* |
| *Explosive Limit – Lower:* | *Not applicable.* |
| **Conductivity:** | *Electrical Conductivity: > 10 000 pS/m A number of factors, for example liquid temperature, presence of contaminants, and anti-static additives can greatly influence the conductivity of a liquid. This material is not expected to be a static accumulator.* |
| **Vapor Pressure:** | *6.020 Pa (20 °C / 68 °F)* |
| **Vapor Density** *(air = 1)*: | *2 (20 °C / 68 °F)* |
| **Relative Density** *(water=1)*: | *0.78 - 0.79 (20 °C / 68 °F)* |
| **Density:** | *785-786 kg/m3 (20 °C /68 °F) Method: ASTM D4052* |
| **Solubility(ies):** | |
| *Solubility in water:* | *Completely Miscible* |
| *Solubility (other):* | *Readily soluble in various other organic solvents.* |
| **Partition coefficient (n-octanol/water):** | *log Pow: 0.05* |
| **Auto-Ignition Temperature:** | *425 °C / 797 °F Method: ASTM D-2155* |
| **Decomposition Temperature:** | *Not applicable.* |
| **Viscosity:** | *2.43 mPa.s dynamic* |

**Other Information:**

| | |
|---|---|
| *Molecular Weight:* | *60.1 g/mol* |
| *Formula:* | *$C_3HO_8$* |

## Section 10: Stability and Reactivity

**Reactivity**

*The product does not pose any further reactivity hazards in addition to those listed in the following sub-paragraph.*

**Chemical Stability**

*No hazardous reaction is expected when handled and stored according to provisions.*

**Possibility of Hazardous Reactions**
*Reacts with strong oxidizing agents.*

**Conditions to Avoid**
*Avoid heat, sparks, open flames and other ignition sources. Prevent vapor accumulation. In certain circumstances product can ignite due to static electricity.*

**Incompatible Materials**
*Strong oxidizing agents.*

**Hazardous Decomposition Products**
*Thermal decomposition is highly dependent on conditions. A complex mixture of airborne solids, liquids and gases including carbon monoxide, carbon dioxide, sulfur oxides and unidentified organic compounds will be evolved when this material undergoes combustion or thermal or oxidative degradation.*

## Section 11: Toxicological Information

**Information on routes of exposure**

**Ingestion:** *No data available.*
**Inhalation:** *Not expected to be a sensitizer.*
**Skin Contact:** *Not irritating to the skin.*
**Eye Contact:** *Causes serious eye irritation.*

**Information on Toxicological Effects**

**Acute Toxicity (List all possible routes of exposure)**

**Oral**
*Isopropyl Alcohol: LD50 (Rat): > 5,000 mg/kg*

**Dermal**
*Isopropyl Alcohol: LD50 (Rabbit): > 5,000 mg/kg*

**Inhalation**
*Low toxicity by inhalation.*

**Repeated Dose Toxicity**
*No data available.*

**Skin Corrosion/Irritation**
*Not irritating to skin.*

**Serious Eye Damage/Eye Irritation**
*Causes serious eye irritation.*

**Respiratory/Skin Sensitization**
*Not expected to be a sensitizer.*

**Carcinogenicity**

**IARC Monographs on the Evaluation of Carcinogenic Risks to Humans**
*No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.*

**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**
*No mutagenic components identified.*

**In Vivo**
*No mutagenic components identified.*

**Reproductive Toxicity**
*Does not impair fertility. Not a developmental toxicant.*

**Specific Target Organ Toxicity – Single Exposure**
*May cause drowsiness and dizziness.*

**Specific Target Organ Toxicity – Repeated Exposure**
*Kidney: caused kidney effects in male rats which are not considered relevant to humans*

**Aspiration Hazard**
*Aspiration into the lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal.*

**Other Effects**
*Remarks: Exposure may enhance the toxicity of other materials. Classifications by other authorities under varying regulatory frameworks may exist.*

## 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**

*Readily biodegradable. Oxidizes rapidly by photo-chemical reactions in air.*

**BOD/COD Ratio**

*No data available.*

**Bioaccumulative Potential**

**Bioconcentration Factor (BCF)**

*Not expected to bioaccumulate significantly.*

**Partition Coefficient n-octanol / water (log Kow)**

*No data available.*

**Mobility in Soil**

*Dissolves in water. If the product enters soil, one or more constituents will or may be mobile and may contaminate groundwater.*

**Other Adverse Effects**

*Not expected to have ozone depletion potential.*

## Section 13: Disposal Considerations

**Disposal Instructions**

*Recover or recycle if possible. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal methods in compliance with applicable regulations. Do not dispose into the environment, in drains or in water courses. Waste product should not be allowed to contaminate soil or water. Disposal should be in accordance with applicable regional, national, and local laws and regulations. Local regulations may be more stringent than regional or national requirements and must be complied with.*

**Contaminated Packaging**

*Drain container thoroughly. After draining, vent in a safe place away from sparks and fire. Residues may cause an explosion hazard. Do not puncture, cut, or weld uncleaned drums. Send to drum recoverer or metal reclaimer.*

## Section 14: Transportation Information

**US Department of Transportation (DOT)**

| | |
|---|---|
| *UN Number:* | *UN1219* |
| *UN Proper Shipping Name:* | *Isopropanol* |
| *Technical Name:* | *-* |
| *Hazard Class:* | *3* |
| *Subsidiary Hazard Risk:* | *-* |
| *Packing Group:* | *II* |
| *DOT Label/Placard Exemptions:* | *Not determined* |
| *Special Provisions:* | *IB2, T4, TP1* |
| *Packaging Exceptions:* | *49CFR 173.150, 4b* |
| *Packaging Non-Bulk:* | *49CFR 173.202* |
| *Packaging Bulk:* | *49CFR 173.242* |
| *Reportable Quantity (RQ):* | *No* |
| *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) #:* | *129* |

*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)**

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

**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:* No

**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)*

**US State Regulations**

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

*This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any 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: 1**
**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: 1**
**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
*Version #:* 001
*Issue Date:* September 11, 2015
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*Revisions:* 1

**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**

*The information in this SDS was obtained from sources which we believe are reliable. HOWEVER, THE INFORMATION IS PROVIDED WITHOUT ANY WARRANTY, EXPRESS OR IMPLIED, REGARDING ITS CORRECTNESS. The conditions or methods of handling, storage, use, and disposal of the product are beyond our control and may be beyond our knowledge. FOR THIS AND OTHER REASONS, WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THE PRODUCT. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.*