

PRODUCT NAME(S): ECOTITE™ SJ 4 LB, ISO, A-side

SECTION 1 – IDENTIFICATION

Manufacturer's Info:
Pinnacle West Enterprises Inc.
 31897 Mercantile Way
 Abbotsford, BC, V2T4C3

Product name: ECOTITE™ SJ 4 LB, A-side
Product Category: Component of Polyurethane System
Recommended use: Use with ThermalGuard and DuraTite Spray Foam Resins

Information phone: (858) 450 0441
Emergency contact: CHEMTREC (800) 424 9300

SECTION 2 – HAZARD(S) IDENTIFICATION

OSHA Hazard Communication Standard:

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

GHS-Label Elements:
Signal Word: DANGER

Pictogram(s):



GHS 07

GHS 08

CONTAINS ISOCYANATES. INHALATION OF ISOCYANATE MISTS OR VAPORS MAY CAUSE RESPIRATORY IRRITATION, BREATHLESSNESS, CHEST DISCOMFORT AND REDUCED PULMONARY FUNCTION. OVEREXPOSURE WELL ABOVE THE PEL MAY RESULT IN BRONCHITIS, BRONCHIAL SPASMS AND PULMONARY EDEMA. LONG-TERM EXPOSURE TO ISOCYANATES HAS BEEN REPORTED TO CAUSE LUNG DAMAGE, INCLUDING REDUCED LUNG FUNCTION WHICH MAY BE PERMANENT. ACUTE OR CHRONIC OVEREXPOSURE TO ISOCYANATES MAY CAUSE SENSITIZATION IN SOME INDIVIDUALS, RESULTING IN ALLERGIC RESPIRATORY REACTIONS INCLUDING WHEEZING, SHORTNESS OF BREATH AND DIFFICULTY BREATHING. ANIMAL TESTS AND OTHER RESEARCH INDICATE THAT SKIN CONTACT WITH MDI MAY PLAY A ROLE IN CAUSING RESPIRATORY SENSITIZATION.

Classification of the substance or mixture:

Hazard Class	Category	Hazard Statement Codes	Hazard Statements
Acute Toxicity, Inhalation (mist)	4	H332	Harmful if inhaled
Skin corrosion / Irritation	2	H315	Causes skin irritation
Serious eye damage / Eye irritation	2B	H320	Causes eye irritation
Respiratory Sensitization	1	H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
Skin Sensitization	1B	H317	May cause an allergic skin reaction
Carcinogenicity	2	H351	Suspected of causing cancer
Specific target organ toxicity, single exposure	3	H335	May cause respiratory irritation
Specific target organ toxicity, repeated exposure	2	H373	May cause damage to olfactory organs through prolonged or repeated exposure (Inhalation)

Classification of the substance or mixture:

Prevention:

- P201 Obtain special instructions before use.
- P202 Causes skin irritation.
- P280 Wear protective gloves / protective clothing / eye protection / face protection.
- P284 Wear respiratory protection.
- P264 Wash exposed area with plenty of water and soap thoroughly after handling.
- P272 Contaminated work clothing should not be allowed out of the workplace
- P270 Do not eat, drink, and smoke when using this product.
- P260 Do not breathe mist, vapors, spray.
- P271 Use only outdoors or in a well-ventilated area.
- P273 Avoid release to the environment.

Response:

- P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- P303 + P361 + P 352 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Wash with plenty of soap and water.
- P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.

PRODUCT NAME(S): ECOTITE™ SJ 4 LB, ISO, A-side

	P304 + P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
	P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	P337 + P311	If eye irritation persists: Call a POISON CENTER or doctor/physician.
	P312	Call a POISON CENTER or doctor/physician if you feel unwell.
	P308 + P311	IF exposed or concerned: Call a POISON CENTER
	P363	Wash contaminated clothing before reuse.
Storage:	P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
	P405	Store locked up.
Disposal	P501	Dispose of contents/container to hazardous or special waste collection point.

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

Components	CAS #	EC #	Concentration %
Polymeric Diphenylmethane Diisocyanate	9016-87-9	None	50 – 60%
4,4'-Diphenylmethane Diisocyanate (MDI)	101-68-8	None	35 – 45%
2,4'-Diphenylmethane Diisocyanate (MDI)	5873-54-1	None	1 – 5%

SECTION 4 – FIRST-AID MEASURES

Description of First Aid measures:

Inhalation: Immediate medical attention required. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing.

If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

If unconscious, place in recovery position and maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. Asthmatic symptoms may develop and may be immediate or delayed up to several hours. Extreme asthmatic reactions can be life threatening.

Skin: Wash material off of the skin with plenty of soap and water for at least 15 minutes. Remove contaminated clothing and shoes immediately and wash them before reuse. Continue to rinse for at least 10 minutes. An MDI study has demonstrated that a polyglycol-based skin cleanser (such as D-Tam™, PEG-400) or corn oil may be more effective than soap and water. For severe exposures, immediately get under safety shower and begin rinsing. If irritation develops, consult a physician or dermatologist.

Eyes: Rinse cautiously with water for several minutes, especially under the eyelids. Remove contact lenses, if present and easy to do. Continue rinsing for at least 15 minutes. Do not rub eyes in order to prevent cornea injury. Immediate medical attention required.

Ingestion: Immediate medical attention required. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Remove dentures if any.

If the exposed person is conscious, rinse mouth with water and then give plenty of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Do not induce vomiting unless directed to do so by medical personnel.

If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions.

Most important symptoms/effects, acute and delayed: Eye irritation, skin irritation, allergic symptoms. Symptoms can appear later. See Section 11 for more details.

General advice for First Aid responders:

No action should be taken involving any personal risk or without suitable training. If potential for exposure exist refer to Section 8 for specific personal protective equipment. Show this SDS to physician.

Note to physician: Antidote: Antidote: Specific antidotes or neutralizers do not exist. Treatment should be supportive and based on the judgment of the physician in response to the reaction of the patient. Recommended medical monitoring for at least 48 hours.

Inhalation: Treatment is essentially symptomatic. An individual having a dermal or pulmonary sensitization reaction to this material should be removed from further exposure to any diisocyanate.

Eyes: Stain for evidence of corneal injury. If cornea is burned, instill antibiotic/steroid preparation as needed. Workplace vapors could produce reversible corneal epithelial edema impairing vision.

PRODUCT NAME(S): ECOTITE™ SJ 4 LB, ISO, A-side

Skin: This compound is a skin sensitizer. Treat symptomatically as for contact dermatitis or thermal burn.

Ingestion: Treat symptomatically. There is no specific antidote. Inducing vomiting is contraindicated because of the irritating nature of the compound.

SECTION 5 – FIRE-FIGHTING MEASURES

Suitable extinguishing media: Water fog or fine spray, alcohol-resistant foam, dry chemical or carbon dioxide fire extinguishers.

Unsuitable extinguishing media: Direct water stream may cause frothing, splattering of burning material and spreading of fire.

Specific hazards arising from the chemical: Material may be ignited only if preheated to high temperatures (such in fire conditions). Fire in vicinity poses risk of pressure build-up and rupture. Containers at risk from fire should be cooled with water and, if possible, removed from the danger area. Exposure to heated diisocyanate can be extremely dangerous. Reaction between water and hot isocyanate may be vigorous. Hazardous Combustion products: carbon dioxide, carbon monoxide, nitrogen oxides, amines, hydrogen cyanide, lower molecular weight organic molecules.

Special Protective Equipment and Precautions for fire-fighters: Wear NIOSH or OSHA approved self-contained breathing apparatus in positive pressure mode with full face piece and full protective gear. Isolate the scene by removing all persons from the incident area. No action should be taken involving any personal risk or without suitable training.

Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

SECTION 6 – ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures:**

For non-emergency personnel: No action shall be taken involving any personal risk or without suitable training.

Keep unnecessary and unprotected personnel from entering. Ensure adequate ventilation/exhaust extraction. Avoid breathing vapors or mist during clean up. Use protective equipment as described in Section 8. Do not touch or walk through spilled material.

Environmental precautions: Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. Inform the relevant authorities if the product has caused environmental pollution.

Methods and materials for containment and cleaning up: Remove mechanically; cover the remainder with non-combustible absorbent material (e.g. sawdust, sand, earth, vermiculite or diatomaceous earth). After approximately one hour, transfer into properly labeled and approved chemical waste containers. Do not fill the container more than 2/3 full to allow for expansion. Cover container, but do not seal, and remove from work area. Keep in a well ventilated area. If necessary, repeat application of absorbent material until all liquid has been removed from the surface. Decontaminate the spill surface area using a neutralization solution (see Section 16 for recommended solutions). Scrubbing the surface with a broom or brush helps the decontamination solution to penetrate into porous surfaces. Wait at least 15 minutes after first application of the neutralization solution. Cover the area again with absorbent material and shovel this into chemical waste container. Apply lid loosely to the waste container (do not tighten the lid because carbon dioxide gas and heat can be generated from the neutralization process). With the lid still loosely in place, move the container to an isolated, well-ventilated area to allow release of carbon dioxide. After 72 hours, seal the container, and properly dispose of the waste material and any contaminated equipment (i.e., broom or brush) in accordance with existing federal, state and local regulations.

Spill cleaning solutions:

Products or product mixtures that have been shown to be effective neutralization solutions for decontaminating surfaces, tools, or equipment that have been in contact with an isocyanate includes:

Products available through industrial suppliers:

- Spartan Chemical Company: 1-800-537-8990:
 - Spartan® ShineLine Emulsifier Plus
 - Spartan® SC-200 Heavy Duty Cleaner

Products available through retail outlets:

- ZEP® Commercial Heavy-Duty Floor Stripper
- Greased Lightning® Super Strength Cleaner and Degreaser
- EASY OFF® Grill and Oven Cleaner or EASY OFF® Fume Free Oven Cleaner
- A mixture of 50% Simple Green® Pro HD Heavy-Duty Cleaner and 50% household ammonia
- A mixture of 90% Fantastic® Heavy Duty All Purpose Cleaner and 10% household ammonia.

Note: Always wear proper PPE when cleaning up an isocyanate spill and using a neutralization solution. It may take two or more applications of the neutralization solution to decontaminate the surface. Check for residual surface contamination using a surface wipe method such as the CLI Swype® pad.

PRODUCT NAME(S): ECOTITE™ SJ 4 LB, ISO, A-side

For major spills: Stop leak if without risk. Move containers from spill area. Remove ignition sources. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or contain and collect with an absorbent material as described in the previous paragraph.

Residues from spill cleanup may continue to be regulated under provisions of RCRA and require storage and disposal as hazardous waste. For major spills, see Section 1 for the Emergency contact; for further disposal measures, see Section 13.

SECTION 7 – HANDLING AND STORAGE

Precautions for safe handling: Protect chemical from atmospheric moisture. Avoid prolonged exposure to heat and air. Keep away from sources of ignition. Do not reseal if contamination is suspected.

Use adequate ventilation to keep airborne levels below the exposure limits. Do not inhale vapors and mists. Wear respiratory protection if material is heated, mixed, sprayed or used in a confined space. Avoid contact with skin and eyes. Wear appropriate eye and skin protection. Wash hands thoroughly after handling. Hands and/or face should be washed before eating, drinking and smoking and at the end of the shift. Remove contaminated clothing and protective equipment before entering eating areas.

This material can produce asthmatic sensitization upon either single inhalation exposure to a relatively high concentration or upon repeated inhalation exposures to lower concentrations. Individuals with asthma, chronic respiratory disease or prior allergic reactions to isocyanates and those with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not handle until all safety precautions have been read and understood.

Conditions for safe storage, including any incompatibilities: Store in original or approved alternative container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink.

Suitable containers: Carbon steel (Iron), High density polyethylene (HDPE), Low density polyethylene (LDPE), Stainless steel 1.4301 (V2). Unsuitable containers: Containers made of copper, copper alloys or galvanized surfaces.

Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Protect it against physical damage and moisture. Normal temperature and pressures do not affect the material. Keep liquid away from heat, sparks and flame. Do not cut, drill, grind, weld or perform similar operations on or near containers. Use appropriate containment to avoid environmental contamination. Segregate from acids and acid forming substances.

Storage stability: Stable under normal conditions.

Storage temperature: 60 - 90°F (16 - 32°C)

Employee education and training in the safe use and handling of this product are required under the OSHA Hazard Communication Standard 29 CFR 1910.1200. Employees and consumers should be warned of health risks associated with product use. See Section 8 for additional information on hygiene measures.

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

Control Parameters/Occupational exposure limit values: Not available for mixture. Results for components:

Components	CAS #	OSHA PEL	ACGIH TWA	NIOSH
4,4'-Diphenylmethane Diisocyanate (MDI)	101-68-8	Ceiling limit value: 0.02 ppm, 0.2 mg/m ³	8 hours TWA: 0.005 ppm	No Data Available

Advice on system design:

Provide process enclosures, local exhaust ventilation or other engineering controls to maintain recommended P.E.L.

Appropriate engineering controls: Use only with adequate ventilation.

Diisocyanates can only be smelled if the occupational exposure limit has been exceeded considerably.

Emissions from ventilation or process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Personal protective equipment:**Eye/face protection:**

When directly handling liquid product, eye protection is required. Examples of eye protection include safety glasses and goggles or full face shield when there is a greater risk of splash. Contact lenses should not be worn when working with chemicals.

Skin/body protection:

Avoid contact with skin. Impervious gloves (nitrile butyl rubber, neoprene and PVC) should be worn always when working with this product. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact. Dispose contaminated gloves after use in accordance with good laboratory practices. Body should be covered with appropriate clothing (apron, arm covers or full body suit) depending on the task being performed and the risks involved. Protective clothing should be selected and used in accordance with "Guidelines for the Selection of Chemical Protective Clothing" published by ACGIH. Wash contaminated clothing before reuse. Store work clothing separately. Appropriate footwear should be also selected based on the task being performed and the risks involved.

PRODUCT NAME(S): ECOTITE™ SJ 4 LB, ISO, A-side**Respiratory protection:**

Use local or general ventilation to control exposures below applicable exposure limits. When ventilation is inadequate, use either an atmosphere supplying respirator or NIOSH or OSHA approved air-purifying respirator for organic vapors. Respirator must be properly fitted and its selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Additional Protective Measures: Educate and train employees in safe handling of this product. Follow all label instructions. As a general hygiene practice, wash hands and face after use. Emergency eyewash fountains and safety shower should be in close proximity as a matter of good practice.

Medical Surveillance: All applicants who are assigned to an isocyanate work area should undergo a pre-placement medical evaluation. A history of eczema or respiratory allergies such as hay fever, are possible reasons for medical exclusion from isocyanate areas. Applicants who have a history of adult asthma should be restricted from work with isocyanates. Applicants with a history of prior isocyanate sensitization should be excluded from further work with isocyanates. A comprehensive annual medical surveillance program should be instituted for all employees who are potentially exposed to diisocyanates. Once a worker has been diagnosed as sensitized to any isocyanate, further exposure cannot be permitted. The Occupational Exposure Limits listed do not apply to previously sensitized individuals. Sensitized individuals should be removed from any further exposure.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Brown Liquid
Odor:	Musty
Odor threshold:	Not applicable
pH:	Not applicable
Melting point/ freezing point:	Freezing point: 3 °C @ 1atm
Initial boiling point and boiling range:	>200°C
Flash point:	220°C (open cup)
Evaporation rate:	Negligible
Flammability (solid, gas):	Not flammable
Upper/ lower flammability or explosive limits:	Upper explosion limit: For liquids not relevant for classification and labeling. Lower explosion point may be 5-15°C below the flash point. For liquids not relevant for classification and labeling.
Vapor pressure:	0.00016 mmHg @ 20°C (68°F)
Vapor density:	Not applicable
Relative density:	1.22 @ 25°C (77°F)
Solubility (water):	Insoluble
Partition coefficient n-octanol/water:	Not applicable
Auto-ignition temperature:	>250°C
Decomposition temperature:	Not available
Viscosity:	200 mPa.s @ 20°C (68°F)

SECTION 10 – STABILITY AND REACTIVITY

Reactivity: MDI is insoluble in and heavier than water and sinks to the bottom but reacts slowly at the interface. A solid water-insoluble layer of polyurea is formed at the interface accompanied by carbon dioxide release. This can lead to container bursting, if tightly closed. There is a risk of exothermic reaction with materials containing active hydrogen groups. The reaction becomes progressively more vigorous and can be violent at higher temperatures if the miscibility of the reaction partners is good or is supported by stirring or by the presence of solvents.

Contact with certain rubbers and plastics can cause brittleness of the product with subsequent loss in strength.

Hazardous Polymerization: Contact with moisture, alcohols, amines, bases and acids or temperatures above 350°F (177°C).

Chemical stability: Stable under recommended storage conditions. Product is hygroscopic; contamination with moisture will negatively affect product performance. Avoid unintended contact with incompatible chemicals; the reaction will generate heat.

Conditions to avoid: Unintentional contact with moisture, excessive heat, open flame and sparks. Avoid mist formation.

Incompatible materials: Strong oxidizing agents. Water, alcohols, amines, bases, acids, copper alloys.

PRODUCT NAME(S): ECOTITE™ SJ 4 LB, ISO, A-side

Hazardous decomposition products: Depend upon temperature, air supply and presence of other materials. Can include, but are not limited to carbon dioxide, carbon monoxide, nitrogen oxides, amines, hydrogen cyanide, lower molecular weight organic molecules. Creates dense black smoke in fire conditions.

SECTION 11 – TOXICOLOGICAL INFORMATION

Likely Routes of Exposure: Inhalation, Skin and Eye Contact, Ingestion.

Symptoms of exposure:**Acute toxicity:**

Oral: Harmful if swallowed. May cause burns to mouth, throat and stomach. Adverse symptoms may include abdominal pain, nausea, vomiting, and diarrhea.

Dermal: May cause severe burns after prolonged contact. Adverse symptoms may include pain or irritation, redness, blistering.

Inhalation: Irritating to respiratory system. Inhalation of vapors may cause irritation of the mucous membranes of the nose, throat or trachea, breathlessness, chest discomfort, difficult breathing and reduced pulmonary function. Inhalation exposure well above the PEL may result additionally in eye irritation, headache, chemical bronchitis, asthma-like findings or pulmonary edema. Isocyanates have also been reported to cause hypersensitivity pneumonitis, which is characterized by flu-like symptoms, the onset of which may be delayed.

Skin corrosion / irritation:

Irritating to skin. Skin contact may result in dermatitis, either irritative or allergic.

Serious eye damage / eye irritation:

Irritating to eyes. Adverse symptoms may include tearing, redness and itching.

Specific target organ toxicity, single exposure:

Causes temporary irritation of the respiratory tract.

Aspiration hazard:

Based on physical properties, not likely to be an aspiration hazard.

Chronic toxicity:**Respiratory and Skin Sensitizer:**

This material contain component that is reported to be a skin sensitizer.

Note: Diphenylmethane-4,4'-diisocyanate (MDI), CAS #: 101-68-8: Reported to be a respiratory and skin sensitizer in humans. Sensitization possible after skin contact. The substance may cause sensitization of the respiratory tract. As a result of previous repeated overexposures or a single large dose, certain individuals will develop isocyanate sensitization (chemical asthma) which will cause them to react to a later exposure to isocyanate at levels well below the PEL/TLV. These symptoms, which include chest tightness, wheezing, cough, shortness of breath, or asthmatic attack, could be immediate or delayed up to several hours after exposure. Similar to many non-specific asthmatic responses, there are reports that once sensitized individual can experience these symptoms upon exposure to dust, cold air, or other irritants. This increased lung sensitivity can persist for weeks and in severe cases for several years. Chronic overexposure to isocyanates has also been reported to cause lung damage, including a decrease in lung function, which may be permanent. Prolonged contact can cause reddening, swelling, rash, scaling, or blistering. In those who have developed a skin sensitization, these symptoms can develop as a result of contact with very small amounts of liquid material, or even as a result of vapor-only exposure. Animal tests indicate that skin contact may play a role in causing respiratory sensitization. *However, the relevance of this result for humans is unclear.*

Germ cell mutagenicity:

Developmental risk to humans is not expected from exposure to this product.

Note: Diphenylmethane-4,4'-diisocyanate (MDI), CAS #: 101-68-8: The substance was mutagenic in various bacterial test systems; however, these results could not be confirmed in tests with mammals.

Carcinogenicity:

This product contains ingredient reported to be possibly carcinogenic to humans by IARC.

Note: Diphenylmethane-4,4'-diisocyanate (MDI), CAS #: 101-68-8: A carcinogenic potential cannot be excluded after prolonged exposure to severely irritating concentrations. These effects are not relevant to humans at occupational levels of exposure.

Reproductive toxicity:

Risk to humans is not expected from exposure to this product. Not known or reported to cause reproductive toxicity.

Repeated inhalative uptake of the substance did not cause damage to the reproductive organs.

Birth defects were not seen in two independent animal (rat) studies. Fetotoxicity was observed at doses that were extremely toxic (including lethal) to the mother. Fetotoxicity was not observed at doses that were not maternally toxic. The doses used in these studies were maximal, respirable.

Specific target organ toxicity, repeated exposure:

Respiratory system, lungs, olfactory epithelium after repeated inhalation.

PRODUCT NAME(S): ECOTITE™ SJ 4 LB, ISO, A-side**Medical conditions aggravated by overexposure:**

The isocyanate component is a respiratory sensitizer. Respiratory sensitization may result in allergic (asthma-like) signs in the lower respiratory tract including wheezing, shortness of breath and difficulty breathing, the onset of which may be delayed. Repeated inhalation of high concentrations may cause lung damage, including reduced lung function, which may be permanent.

Medical supervision of all employees who handle or come into contact with isocyanates is recommended. Persons with history of respiratory disease or hypersensitivity should not be exposed to this product. Persons with asthmatic conditions, chronic bronchitis, other chronic respiratory diseases, recurrent eczema or pulmonary sensitization should be excluded from working with isocyanates. Once a person is diagnosed as having pulmonary sensitization (allergic asthma) to isocyanates, further exposure is not recommended.

Pre-employment and periodic medical examinations with respiratory function tests (FEV, FVC as a minimum) are suggested.

Toxicity test results: Not available for mixture. Results for components:

Components	Test Results
Diphenylmethane-4,4'-diisocyanate (MDI) CAS #: 101-68-8	<p><u>Acute Toxicity</u> Oral LD50 (Rat): >2,000 mg/kg (Directive 84/449/EEC, B.1) Dermal LD50 (Rabbit): >9,400 mg/kg Inhalation LC50 (Rat), 1hr: 2.0 mg/L (OECD Guideline 403) An aerosol was tested. Skin corrosion/irritation (Rabbit): irritating (Draize test) Serious eye damage/eye irritation (Rabbit): irritating (Draize test) Sensitization (guinea pig): sensitizing (Buehler test) (mouse): Can cause skin sensitization (Mouse Local Lymph Node Assay)</p> <p><u>Chronic Toxicity</u> Repeated dose toxicity: Experimental/calculated data: (rat, inhalation) 2 yrs, 6 hr/day at 0, 0.2, 1, 6 mg/m³: olfactory epithelium; NOAEL: 0.2 mg/m³, LOAEL: 1 mg/m³ Genetic toxicity: in vitro (Salmonella typhimurium): with and without metabolic activation ambiguous (OECD Guideline 471 Ames-test) / in vivo (rat): Inhalation negative (OECD Guideline 474 Micronucleus assay) Carcinogenicity: Experimental/calculated data (rat, inhalation) at 0, 0.2, 1, 6 mg/m³: Lung tumors (OECD Guideline 453) Teratogenicity: (rat, inhalation) at 0, 1, 4, 12 mg/m³: NOAEL Mat.: 4 mg/m³, NOAEL Teratog.: 4 mg/m³ (OECD Guideline 414) - The substance did not cause malformations in animal studies; however, toxicity to development was observed at high doses that were toxic to the parental animals.</p>

SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity: By considering the production and use of the substance, it is unlikely that product is harmful to aquatic organisms, neither acutely nor chronically. Immiscible with water, but will react with water to produce inert and non-biodegradable solids. Conversion to soluble products, including diamino-diphenylmethane (MDA), is very low under the optimal laboratory conditions of good dispersion and low concentration. In air, the predominant degradation process is predicted to be a relatively rapid OH radical attack, based on calculation and analogy with related diisocyanates.

Persistence and degradability: Poorly biodegradable by OECD criteria. In contact with water the substance will hydrolyze slowly. After evaporation or exposure to the air, the product will be rapidly degraded by photochemical processes.

Bioaccumulative potential: No significant accumulation in organisms is expected.

Mobility in soil: Not expected.

Other adverse effects: No known significant effects or critical hazards.

Ecotoxicity test results: Not available for the mixture. Results for components:

Components	Test Results
Diphenylmethane-4,4'-diisocyanate (MDI) CAS #: 101-68-8	<p><u>Acute Toxicity</u> Fish: LC50, 96hrs: > 1,000 mg/L (OECD Guideline 203, static) LC50, 96hrs: 772.14mg/L (OECD Guideline 203, static) Aquatic invertebrates: EC50, 24hrs: > 1,000 mg/L (OECD Guideline 202, part 1, static) Aquatic plants: EC50, 72hrs: 1,640 mg/L (growth rate) (OECD Guideline 201, static)</p> <p><u>Ecological Data</u> Activated sludge (EC50 aerobic bacteria from a domestic water treatment plant), 3hrs: >100 mg/L (OECD Guideline 209)</p> <p><u>Elimination data</u> Aerobic, activated sludge, 28days: 0 % BOD of the ThOD; Poorly biodegradable (OECD Guideline 302 C); Stability in Water (Hydrolysis): t_{1/2}: 20 hours (25 °C) Bioconcentration factor (common carp), 28days: 200 (OECD Guideline 305 E)</p>

SECTION 13 – DISPOSAL CONSIDERATIONS

Product Disposal: The generation of waste should be avoided or minimized wherever possible. If product becomes a waste, it does not meet criteria of hazardous waste as defined in 40 CFR 261, Subpart C and D. Do not discharge into sewer system. Spill cleanup

PRODUCT NAME(S): ECOTITE™ SJ 4 LB, ISO, A-side

residues may still be subject to RCRA storage and disposal requirements. Dispose waste in compliance with local, state and federal regulations via licensed waste disposal contractor.

Container disposal: Even after emptying, container may retain residues. Empty containers should be completely drained and safely stored until appropriately reconditioned or disposed through licensed contractor in accordance with government regulations.

This material and its container must be disposed of in a safe way.

SECTION 14 – TRANSPORT INFORMATION**Land transport, U.S. DOT:**

UN number: UN 3082
 UN proper shipping name: Other regulated substances, liquid, n.o.s. (contains 4,4'-Diphenylmethane Diisocyanate (MDI))
 Transport hazard class(es): 9
 Packing group: III
 Hazard Label(s): Class 9
 Environmental Hazard:
 Special precautions: Reportable Quantity: 5,000 lbs for 4,4'-Diphenylmethane Diisocyanate (MDI)
 11,905 lbs for product
 When in individual containers of less than the Product RQ, this material ships as non-regulated.

Sea transport, IMDG: Non-regulated

Air transport, IATA/ICAO: Non-regulated

SECTION 15 – REGULATORY INFORMATION**U.S. Regulations:**

OSHA HCS: This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29CFR 1910.1200.

TSCA Regulations: All ingredients of this product are listed or are exempt from TSCA Inventory requirements under 40 CFR 720.30.

EPCRA Section 302 (Emergency Response Planning, Extremely Hazardous Substance): No ingredients are subject to the reporting

EPCRA Section 304 (Emergency Release Notification Requirements): The following components are subject to the reporting:

Diphenylmethane-4,4'-diisocyanate (MDI): Reportable Quantity: 5,000 lbs / Product Reportable Quantity: 11,905 lbs

EPCRA Sections 311 & 312 (Hazardous Chemical Inventory Reporting, Hazard Categories):

Acute Health Hazard, Chronic health hazard

EPCRA Section 313 (40 CFR 372) (Toxic Chemical Release Inventory Reporting):

The following components are subject to the reporting:

Diphenylmethane-4,4'-diisocyanate (MDI), CAS #: 101-68-8

Polymeric Diphenylmethane Diisocyanate (pMDI), CAS #: 9016-87-9

Clean Air Act:

Ozone Depleting Substances (ODS): This product does not contain and is not manufactured with ozone depleting substances.

Section 112(b) Hazardous Air Pollutants (HAPs): 4,4'-Methylenediphenyl diisocyanate CAS #: 101-68-8

NFPA rating: Health: 2 Fire: 1 Reactivity: 0 Special: 0

HMIS rating: Health: 2 Flammability: 1 Physical Hazard: 0

State Regulations:

California Prop. 65 Components:

This product does not contain chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

Instruction: for regulatory information on components of this mixture, check the appropriate state websites.

International Regulations/Inventories:

Canadian Regulations:

CEPA/Canadian DSL: All ingredients of this product are listed or are exempt from the DSL.

WHMIS Classification (Controlled Products Regulations): Class D-2A: Material causing other toxic effects (Very toxic).
 Class D-2B: Material causing other toxic effects (Toxic).

WHMIS Label Information:



PRODUCT NAME(S): ECOTITE™ SJ 4 LB, ISO, A-side

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.

Australia inventory (AICS): All components are listed or exempted.
 China inventory (IECSC): All components are listed or exempted.
 Japan inventory: All components are listed or exempted.
 Korea inventory: All components are listed or exempted.
 Malaysia Inventory (EHS Register): All components are listed or exempted.
 New Zealand Inventory of Chemicals (NZIoC): All components are listed or exempted.
 Philippines inventory (PICCS): All components are listed or exempted.
 Taiwan inventory (CSNN): All components are listed or exempted
 Brazil Regulations Classification system used: Norma ABNT-NBR 14725-2:2012

SECTION 16 – OTHER INFORMATION**LEGEND KEY**

<u>Abbreviation</u>	<u>Meaning</u>
GHS	Globally harmonized System
CAS	Chemical Abstracts Services
EPA	Environmental Protection Agency
OSHA	Occupational Safety and Health Administration
ACGIH	American Conference of Governmental Industrial Hygienists
NIOSH	National Institute of Occupational Safety and Health
PEL	Permissible Exposure Limits
TLV	Threshold Limit Value
REL	Recommended Exposure Limit
TWA	Time-Weighted Average
STEL	Short-term exposure limit
OES	Occupational exposure standard
DNEL	Derived No Effect Level
MAK	Maximale Arbeitsplatz-Konzentration (maximum workplace concentration)
TRGS	Technische Regeln für Gefahrstoffe (regulatory limits)
IARC	International Agency for Research on Cancer
NTP	National Toxicology Program
COD	Chemical Oxygen Demand
BOD	Biological Oxygen Demand
PACs	Polycyclic Aromatic Compounds
PAH	Polycyclic Aromatic Hydrocarbon Content
DOT	Department of Transportation
IMDG	International maritime dangerous goods code
IATA, ICAO	International Air Transport Association, International Civil Aviation Organization
EPCRA	Emergency Planning and Community Right-to-Know Act
SARA	State Authorization Reciprocity Agreements
DSL	Domestic Substance List
WHMIS	Workplace Hazardous Materials Information System
TDG	Transport of Dangerous Goods
HCS	Hazard Communication Standard
CEPA	Center for European Policy Agreements
EINECS	European Inventory of Existing Commercial Chemical Substances
CPR	Controlled Products Regulations

Latest revision date:

April 5, 2016 – added part number 10315 to SDS

Date of the previous revision:

May 10, 2015 – Preparation of SDS in accordance to the GHS requirements

January 12, 2009

Disclaimer: The data set forth in this sheet are based on information provided by the suppliers of the raw materials and chemicals used in the manufacture of the aforementioned product. Pinnacle West Enterprises Inc. makes no warranty with respect to the accuracy of the information provided by their suppliers, and disclaims all liability of reliance thereof.

PRODUCT NAME(S): ECOTITE™ SJ 4 LB, B Side

SECTION 1 – IDENTIFICATION

Manufacturer's Info:
Pinnacle West Enterprises Inc.
 31897 Mercantile Way
 Abbotsford, BC, V2T4C3

Product name: ECOTITE™ SJ 4 LB, Part B
Product Category: Polyurethane Resin Blend
Recommended Use: For 2 component SPF

Information phone: (604) 854-5968
Emergency contact: CHEMTREC (800) 424 9300

SECTION 2 – HAZARD(S) IDENTIFICATION

OSHA Hazard Communication Standard:

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

GHS-Label Elements:
Signal Word: DANGER

Pictogram(s):



GHS 05



GHS 08

Classification of the substance or mixture:

Hazard Class	Category	Hazard Statement Codes	Hazard Statements
Acute Toxicity, Oral	4	H302	Harmful if swallowed
Acute Toxicity, Dermal	5	H313	May be harmful in contact with skin
Skin corrosion / irritation	1A-1C	H314	Causes severe skin burns and eye damage.
Serious eye damage / Eye irritation	2B	H320	Causes eye irritation.

Precautionary Statements:

Prevention: P280 P264 P270 P260 P273 Response: P301 + P330 + P331 P303 + P361 + P352 P304 + P340 P305 + P351 + P338 P310 P314 P332 + P313 P363 Storage: P405 Disposal: P501	Wear protective gloves/ protective clothing / eye protection/ face protection. Wash exposed area with plenty of water and soap thoroughly after handling. Do not eat, drink, and smoke when using this product. Do not breathe mist, vapors, spray. Avoid release to the environment. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Wash with plenty of soap and water. IF INHALED: Remove victim to fresh air and keep at rest in a position 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 doctor/physician. Get medical advice/attention if you feel unwell. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse. Store locked up. Dispose of contents/container to hazardous or special waste collection point.
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SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

Components	CAS #	EC #	Concentration %
Polyether Polyol	52019-35-9	N/A	<80%
Amine Catalyst Blend	Trade Secret	N/A	0.5 – 2.0%

SECTION 4 – FIRST-AID MEASURES**Description of First Aid measures:**

- Inhalation:** Immediate medical attention required. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing.
If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person should be kept under medical surveillance for 48 hours.
- Skin:** Immediate medical attention required. Call a poison center or physician. Chemical burns must be treated promptly by a physician or dermatologist. Wash material off of the skin with plenty of soap and water for at least 15 minutes.
Remove contaminated clothing and shoes immediately and wash them before reuse.
- Eye:** Immediate medical attention required. Call a poison center or physician. Chemical burns must be treated promptly by a physician or ophthalmologist.
Rinse cautiously with water for several minutes, especially under the eyelids. Remove contact lenses, if present and easy to do. Continue rinsing for at least 15 minutes. Do not rub eyes in order to prevent cornea injury.
- Ingestion:** Immediate medical attention required. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Remove dentures if any.
If the exposed person is conscious, rinse mouth with water and then give plenty of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Do not induce vomiting unless directed to do so by medical personnel.
If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions.

Most important symptoms/effects, acute and delayed:

See Section 11.

General advice for First Aid responders:

No action should be taken involving any personal risk or without suitable training. If potential for exposure exist refer to Section 8 for specific personal protective equipment. Show this SDS to physician.

Note to physician: Antidote: Specific antidotes or neutralizers do not exist. Treatment should be supportive and based on the judgment of the physician in response to the reaction of the patient. Recommended medical monitoring for at least 24 hours.

SECTION 5 – FIRE-FIGHTING MEASURES

Suitable extinguishing media: Water fog or fine spray, alcohol-resistant foam, dry chemical or carbon dioxide fire extinguishers.

Unsuitable extinguishing media: Direct water stream may cause frothing, splattering of burning material and spreading of fire.

Specific hazards arising from the chemical: Material may be ignited only if preheated to high temperatures (such in fire conditions). Fire in vicinity poses risk of pressure build-up and rupture. Containers at risk from fire should be cooled with water and, if possible, removed from the danger area. Hazardous Combustion products: Carbon dioxide, Carbon monoxide, nitrogen oxides, lower molecular weight organic molecules.

Special Protective Equipment and Precautions for fire-fighters: Wear NIOSH or OSHA approved self-contained breathing apparatus in positive pressure mode with full face piece and full protective gear. Isolate the scene by removing all persons from the incident area. No action should be taken involving any personal risk or without suitable training. Spilled product will cause very slippery walking surfaces.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: For non-emergency personnel: No action shall be taken involving any personal risk or without suitable training. Keep unnecessary and unprotected personnel from entering. Ensure adequate ventilation/exhaust extraction. Avoid breathing vapors or mist during clean up. Use protective equipment as described in Section 8. Do not touch or walk through spilled material; spilled material may cause a slipping hazard.

Environmental precautions: Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. Inform the relevant authorities if the product has caused environmental pollution. Water polluting material. May be harmful to the environment if released in large quantities. See Section 12.

Methods and materials for containment and cleaning up: Remove mechanically; cover the remainder with non-combustible absorbent material (e.g. sawdust, sand, earth, vermiculite or diatomaceous earth). After approximately one hour, transfer into properly labeled chemical waste containers. Cover container, but do not seal, and remove from work area. Keep in a well ventilated area. Wash the spill site with soap and water.

For major spills: Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or contain and collect with an absorbent material as described in the previous paragraph.

Residues from spill cleanup may continue to be regulated under provisions of RCRA and require storage and disposal as hazardous waste. For major spills, see Section 1 for the Emergency contact; for further disposal measures, see Section 13.

SECTION 7 – HANDLING AND STORAGE

Precautions for safe handling: Protect chemical from atmospheric moisture. Avoid prolonged exposure to heat and air. Keep away from sources of ignition. Do not reseal if contamination is suspected.

Use adequate ventilation to keep airborne levels below the exposure limits. Do not breathe vapors and mists. Wear respiratory protection if material is heated, mixed, sprayed or used in a confined space. Avoid contact with skin and eyes. Wear appropriate eye and skin protection. Wash hands thoroughly after handling. Hands and/or face should be washed before eating, drinking and smoking and at the end of the shift. Remove contaminated clothing and protective equipment before entering eating areas.

Conditions for safe storage, including any incompatibilities: Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Protect it against physical damage and moisture. Normal temperature and pressures do not affect the material. Keep liquid away from heat, sparks and flame. Do not cut, drill, grind, weld or perform similar operations on or near containers. Use appropriate containment to avoid environmental contamination.

Storage stability: Stable under normal conditions.

Storage temperature: 60 - 90°F (16 – 32°C)

Employee education and training in the safe use and handling of this product are required under the OSHA Hazard Communication Standard 29 CFR 1910.1200. Employees and consumers should be warned of health risks associated with product use. See Section 8 for additional information on hygiene measures.

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

Control Parameters/Occupational exposure limit values: Not available for mixture. Results for components:

USA

Components	CAS #	OSHA PEL	ACGIH TWA	NIOSH
Amine Catalyst Blend	Trade Secret	None	TLV: 0.05 ppm STEL: 0.15 ppm	No data

Appropriate engineering controls: Good local and general ventilation should be sufficient to control worker exposure to airborne contaminants below recommended exposure limits. Local exhaust may be required in some areas.

Personal protective equipment:

Eye/face protection:

When directly handling liquid product, eye protection is required. Examples of eye protection include safety glasses and goggles or full face shield when there is a greater risk of splash. Contact lenses should not be worn when working with chemicals.

Skin/body protection:

Avoid contact with skin. Impervious gloves (nitrile butyl rubber, neoprene and PVC) should be worn always when working with this product. Use proper glove removal technique (without touching glove’s outer surface) to avoid skin contact. Dispose contaminated gloves after use in accordance with good laboratory practices. Body should be covered with appropriate clothing (apron, arm covers or full body suit) depending on the task being performed and the risks involved. Protective clothing should be selected and used in accordance with “Guidelines for the Selection of Chemical Protective Clothing” published by ACGIH.

Wash contaminated clothing before reuse. Store work clothing separately. Appropriate footwear should be also selected based on the task being performed and the risks involved.

Respiratory protection:

Use local or general ventilation to control exposures below applicable exposure limits. When ventilation is inadequate, use either an atmosphere supplying respirator or NIOSH or OSHA approved air-purifying respirator for organic vapors. Respirator

must be properly fitted and its selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Additional Protective Measures: Educate and train employees in safe handling of this product. Follow all label instructions. As a general hygiene practice, wash hands and face after use. Emergency eyewash fountains and safety shower should be in close proximity as a matter of good practice.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Amber Liquid
Odor:	Ammonia-like
Odor threshold:	Not available
pH:	9-10
Melting point/ freezing point:	< - 30°C (<-22°F) becomes highly viscous at low temperatures
Initial boiling point and boiling range:	Decomposed before boiling
Flash point:	Closed cup: >185°C (365°F)
Evaporation rate:	Negligible
Flammability (solid, gas):	Not available
Upper/ lower flammability or explosive limits:	Not available
Vapor pressure:	Not available
Vapor density:	Not available
Relative density:	1.09 @ 25°C (77°F)
Solubility (water):	partially soluble
Partition coefficient n-octanol/water:	Not available
Auto-ignition temperature:	>200°C (392°F)
Decomposition temperature:	>200°C (392°F)
Viscosity:	750 - 1300 cP @ 25°C (77°F)

*Where data are not known for mixture, they are stated for components, if available.

SECTION 10 – STABILITY AND REACTIVITY**Reactivity:**

Hazardous Polymerization: Product will not undergo hazardous polymerization.

Corrosion to metals: Corrosive effects to metal are not anticipated.

Oxidizing properties: Based on its structural properties the product is not classified as oxidizing.

Formation of flammable gases: Does not form flammable gases in the presence of water.

Chemical stability: Stable under recommended storage conditions. Product is hygroscopic; contamination with moisture will negatively affect product performance. Avoid unintended contact with isocyanates; the reaction will generate heat.

Conditions to avoid: Unintentional contact with moisture, excessive heat, open flame and sparks. Avoid mist formation.

Incompatible materials: Strong oxidizing agents.

Hazardous decomposition products: Depend upon temperature, air supply and presence of other materials. Can include, but are not limited to carbon dioxide, carbon monoxide, alcohols, ethers, ketones, hydrocarbons, polymer fragments.

SECTION 11 – TOXICOLOGICAL INFORMATION

Acute Toxicity: Expected to be a low hazard for usual industrial or commercial handling by trained personnel.

Likely Routes of Exposure: Skin contact. Eye contact.

Eye: Causes serious eye damage.

Skin: Causes skin irritation.

Ingestion: Not an expected route of exposure. Expected to be a low ingestion hazard.

Inhalation: Not an expected route of exposure. Not an expected route of exposure. No adverse effects due to inhalation are expected.

SAFETY DATA SHEET

Part No.: ECO-SJ-B

Date Released: May 19, 2016

Calculated overall chemical acute toxicity values for this formulation:

Calculated overall Chemical Acute Toxicity Values		
LC50 (inhalation)	LD50 (oral rat)	LD50 (dermal rabbit)
No Data Available	>1,370 mg/kg	>12,800 mg/kg

DELAYED, IMMEDIATE, AND CHRONIC EFFECTS OF SHORT- AND LONG-TERM EXPOSURE

Skin Corrosion/Irritation:	Causes skin irritation category 2
Serious Eye Damage/Irritation:	Causes serious eye damage, category 1
Respiratory Sensitization:	no data
Skin Sensitization:	no data
Symptoms and Target Organs:	Causes severe eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.
Chronic Health Effects:	No chronic health effects known.
Carcinogenicity:	This product is not classified as a carcinogen.

Material	OSHA(O)	ACGIH(G)	NTP(N)	IARC(I)

SOURCE AGENCY CARCINOGEN CLASSIFICATIONS:

OSHA (O) =Occupational Safety and Health Administration
 Yes = Expected to be carcinogenic
 not listed = Not expected to be carcinogenic

ACGIH (G) =American Conference of Governmental Industrial Hygienists
 A1 =Confirmed human carcinogen
 A2 =Suspected human carcinogen
 A3 =Animal carcinogen
 A4 =Not classifiable as a human carcinogen
 A5 =Not suspected as a human carcinogen
 not listed = Not expected to be carcinogenic

NTP (N) =National Toxicology Program
 1 =Known to be a carcinogen
 2 = Reasonably anticipated to be a carcinogen
 not listed = Not expected to be carcinogenic

IARC (I) =International Agency for Research on Cancer
 1 =Carcinogenic to humans
 2A =Probably carcinogenic to humans
 2B =Possibly carcinogenic to humans
 3 =Not classifiable as to its carcinogenicity to humans
 4 =Probably not carcinogenic to humans
 not listed = Not expected to be carcinogenic

Mutagenicity:

No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Reproductive Toxicity:

No data

Specific Target Organ Toxicity (STOT):

Single Exposure: Not classified as an STOT - Single Exposure.
 Repeated Exposure: Not classified as an STOT - Repeated Exposure.

Aspiration Toxicity:

Based on available data, this product is not expected to cause aspiration toxicity.

Other Information:

Not available.

SECTION 12 – ECOLOGICAL INFORMATION

Do not discharge product into the environment.

Assessment of aquatic toxicity: Toxic to aquatic organisms.

Assessment of terrestrial toxicity: No data available.

Persistence and degradability: No data available.

Bioaccumulative potential: No data available.

Mobility in soil: No data available.

Other adverse effects: No data available.

SECTION 13 – DISPOSAL CONSIDERATIONS

Product Disposal: The generation of waste should be avoided or minimized wherever possible. If product becomes a waste, it does not meet criteria of hazardous waste as defined in 40 CFR 261, Subpart C and D. Do not discharge into sewer system. Spill cleanup residues may still be subject to RCRA storage and disposal requirements. Dispose waste in compliance with local, state and federal regulations via licensed waste disposal contractor.

Container disposal: Even after emptying, container may retain residues. Empty containers should be completely drained and safely stored until appropriately reconditioned or disposed through licensed contractor in accordance with government regulation.

This material and its container must be disposed of in a safe way.

SECTION 14 – TRANSPORT INFORMATION

Land Transport (US DOT):	Not regulated
Land Transport (Canadian TDG):	Not regulated
Land Transport (European ADR/RID):	Not regulated
Marine Transport (IMDG/IMO):	Not regulated
Air Transport (ICAO/IATA):	Not regulated

SECTION 15 – REGULATORY INFORMATION

U.S. Regulations:

U.S. OSHA (Occupational Safety and Health Administration) Specifically Regulated Substances (29 CFR 1910.1001-1050):

Components of this product is present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

CERCLA Hazardous Substances (40 CFR 302): None reportable.

SARA 311/312: Acute health hazard.

SARA 313: None reportable

US State Regulations STATE RIGHT-TO-KNOW: This product does not contain chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm. (California Health and Safety Code Section 25249.6).

Canadian Regulations DSL: All components of this product are listed on, or exempt from the DSL. WHMIS: Class D2B (skin or eye irritation).

International Inventories* United States: All components of this product are listed on the TSCA inventory.

Japan: All components of this product are listed on the ENCS.

*Although a chemical may be listed on a country's inventory, it may not indicate a hazard or regulatory control for use.

NFPA rating: Health: 3 Fire: 1 Reactivity: 0 Special: 0

HMIS rating: Health: 3 Flammability: 1 Physical Hazard: 0

SECTION 16 – OTHER INFORMATION

LEGEND KEY

<u>Abbreviation</u>	<u>Meaning</u>
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IATA, ICAO	International Air Transport Association, International Civil Aviation Organization
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SARA	State Authorization Reciprocity Agreements
DSL	Domestic Substance List
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HCS	Hazard Communication Standard
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SAFETY DATA SHEET

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CPR Controlled Products Regulations

Latest revision date: May 19, 2016 – Preparation of SDS in accordance to the GHS requirements

Date of the previous revision:

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