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2904 DEGREASER

Material Safety Data Sheet

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: 2904 DEGREASER

Application: HEAVEY DUTY DEGREASER AND CLEANER

MFG By:
AXSYS DIRECT MFG
4523-97ST EDMONTON,AB
T6E 5Y8

Prepared By: The Safety, Health and Environment Department of AXSYS DIRECT MFG.

Preparation date of MSDS: July 24, 2015

Telephone number of preparer: 1-866-543-5276

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2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients Percentage

LD50s and LC50s Route & Species:
Sodium Hydroxide CAS# 1310-73-2
% BY WEIGHT 3-7%
Oral LDLo (Rabbit) : 500mg/kg

Ethylene Glycol Monobutyl-Ethe CAS#111-76-2
% BY WEIGHT 3-7%
LD₅₀ Oral (rat) 1480 mg/kg
LD₅₀ Dermal (rabbit) 630 mg/kg

Water CAS # 7732-18-5
% BY WEIGHT 94- 86 %
Balance Oral LD50 (Rat) >90 mL/kg

Note: No additional remark.

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3. HAZARDS IDENTIFICATION

Potential Acute Health Effects:

Eye Contact: Causes severe eye burns. Small quantities can result in permanent damage and/or loss of vision. Damage can range from severe irritation and mild scarring to blistering, disintegration, ulceration, severe scarring and clouding. Conditions that affect vision such as glaucoma and cataracts are possible late developments. In severe cases, there is progressive ulceration and clouding of eye tissue, which may lead to permanent blindness.

Skin Contact: Brief contact may cause severe skin burns. Symptoms may include pain, severe local redness, swelling and tissue damage. Corrosive action causes burns and frequently deep ulcerations with subsequent scarring. Prolonged contact destroys tissue. May cause dermatitis. Sodium hydroxide can penetrate to deeper layers of skin and corrosion will continue until removed. Burns may not be immediately painful; onset of pain may be delayed minutes to hours.

Inhalation: Inhalation of dusts or mists can cause damage to the upper respiratory tract and to the lung tissue depending on severity of exposure. Effects can range from mild irritation of mucous membranes, severe pneumonitis and destruction of lung tissue. Due to its corrosive nature, exposure to high concentrations of sodium hydroxide aerosol could cause a potentially fatal build-up of fluid in the lungs (pulmonary edema). Symptoms of pulmonary edema (tightness in the chest and shortness of breath) can develop up to 48 hours after exposure and are aggravated by physical exertion.

Ingestion: Can cause severe burns to mouth, esophagus and stomach. Aspiration into the lungs may occur during ingestion or vomiting, resulting in lung injury.

4. FIRST AID MEASURES

Eye Contact: Flush eyes with gently flowing water for 15-30 minutes, while holding the eyelid(s) open. Take care not to rinse the contaminated water into the unaffected eye or face. Seek immediate medical attention. You may have 10 seconds or less to avoid serious permanent damage.

Skin Contact: Flush affected skin with gently flowing water for 15-30 minutes and remove contaminated clothing while rinsing. Remove contaminated clothing and launder before reuse. Discard contaminated leather articles such as shoes and belt. Obtain medical attention immediately

Inhalation: Remove person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, get immediate medical attention.

Ingestion: Gently wipe or rinse the inside of the mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious or convulsing person. Seek immediate medical attention. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs.

Notes to Physician: Treatment based on sound judgment of physician and individual reactions of patient. Due to irritant properties, swallowing may result in burns/ulceration of mouth, stomach and lower GI tract with subsequent stricture. Aspiration of vomitus may cause lung injury. Suggest endotracheal/esophageal control if lavage is done. Chemical eye burns may require extended irrigation. Obtain prompt consultation, preferably from an ophthalmologist. If burn is present, treat as any thermal burn, after decontamination.

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5. FIRE FIGHTING MEASURES

Flash Point: None.

Flash Point Method: Not applicable.

Autoignition Temperature: Not available.

Flammable Limits in Air (%): Not Available.

Extinguishing Media: Does not burn. Use extinguishing media appropriate for surrounding fire. Water is not recommended, but may be applied in large quantities as a fine spray when other extinguishing agents are not available.

Special Exposure Hazards: Isolate and restrict area access. Product reacts with water. Reaction may produce heat and/or gases. This reaction may be violent. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids. Contact with some metals (particularly magnesium, aluminum and galvanized zinc) can rapidly generate hydrogen.

Hazardous Decomposition/Combustion Materials (under fire conditions): Oxides of sodium.

Special Protective Equipment: Fire fighters must wear full face, positive pressure, self-contained breathing apparatus and appropriate protective clothing.

NFPA RATINGS FOR THIS PRODUCT ARE: HEALTH 3, FLAMMABILITY 0, INSTABILITY 1

HMIS RATINGS FOR THIS PRODUCT ARE: HEALTH 3, FLAMMABILITY 0, REACTIVITY 1

6. ACCIDENTAL RELEASE MEASURES

Personal Precautionary Measures: Wear appropriate protective equipment.

Environmental Precautionary Measures: Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. Consult local authorities.

Procedure for Clean Up: Isolate hazard area and restrict access. If the material has been mixed with water or any other liquid, then dike area to contain spill. Contain spill and recover if possible. Dilute spill with large amounts of water and neutralize with dilute acid. Neutralize the residue with a dilute solution of acetic acid. Use vacuum truck to pick up neutralized material for proper disposal. Flush area with water to remove trace residue. This material is alkaline and may raise the pH of surface waters with low buffering capacity.

7. HANDLING AND STORAGE

Handling: For industrial use only. Handle and open containers with care. Avoid contact with eyes, skin and clothing. Do not ingest. Avoid inhalation of chemical. Empty containers may contain hazardous product residues. Keep the containers closed when not in use. Protect against physical damage. Use appropriate personnel protective equipment.

SPECIAL PRECAUTIONS FOR DILUTING 2904 DEGREASER:

1. ALWAYS add 2904 DEGREASER to water. NEVER add water 2904 DEGREASER.
2. The water should be lukewarm (80 - 100°F). NEVER start with hot or cold water.

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7. HANDLING AND STORAGE

temperature increase can result in DANGEROUS mists, boiling or spattering .Avoid contact with organic materials and concentrated acids- may cause violent reactions. Caustic soda reacts with magnesium, aluminum, zinc (galvanized), tin, chromium, brass and bronze, generating hydrogen which is explosive.

Caustic soda may react with various sugars to generate carbon monoxide. Hazardous carbon monoxide gas can form upon contact with food and beverage products in enclosed vessels and can cause death.

Storage: Store in a cool, dry, well ventilated area, away from heat and ignition sources. Place away from incompatible materials. Store in accordance with good industrial practices. Product has a shelf life of 24 months.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls:

Local exhaust ventilation as necessary to maintain exposures to within applicable limits.

Respiratory Protection: Atmospheric levels should be maintained below the exposure guideline. When respiratory protection is required, use an approved air-purifying or positive-pressure supplied-air respirator depending on the potential airbourne concentration. In misty atmospheres, use an approved organic vapor respirator in combination with a dust/mist filter.

Gloves:

Appropriate chemical resistant gloves should be worn. Nitrile gloves. Neoprene gloves. Natural rubber gloves.

Skin Protection: Skin contact should be prevented through the use of suitable protective clothing, gloves and footwear, selected for conditions of use and exposure potential. Consideration must be given both to durability as well as permeation resistance. Neoprene coated apron or chemical resistant clothing.

Eyes: Close fitting chemical safety goggles with faceshield.

Other Personal Protection Data: Ensure that eyewash stations and safety showers are proximal to the work-station location.

Ingredients Exposure Limit - ACGIH Exposure Limit - OSHA Immediately Dangerous to Life or Health - IDLH

Sodium Hydroxide 2 mg/m³ Ceiling 2 mg/m³ Ceiling 10 mg/m³
Water Not available. Not available. Not Available.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid.

Colour: RED TO PINK

Odour: Odourless

pH 12 TO 14

Specific Gravity: 1.06

Boiling Point: 98.9 C. OR 210 F.

Freezing/Melting Point: 0 C.

Vapour Pressure: NOT DETERMINED

Vapour Density: Not Available.
Evaporation Rate: Not Available.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Solubility: Completely soluble.

VOCs: Not Available.

Viscosity: Not Available.

Molecular Weight: Not Available.

Other: Not Available.

10. STABILITY AND REACTIVITY

Chemical Stability: Stable.

Hazardous Polymerization: Will not occur.

Materials to Avoid: Acids. Glycols. Heat is generated when mixed with water.

Flammable hydrogen may be generated from contact with metals such as: aluminum, brass, tin, zinc. Avoid contact with acids, halogenated organics, organic nitro compounds, glycols. Caustic soda solution reacts readily with various reducing sugars (i.e. fructose, galactose, maltose, dry whey solids) to produce carbon monoxide. Precautions should be taken to ensure safety of personnel. Organic materials. Nitro organic compounds.

Hazardous Decomposition Products: Oxides of sodium.

11. TOXICOLOGICAL INFORMATION

Principle Routes of Exposure

Ingestion: Can cause severe burns to mouth, esophagus and stomach. Aspiration into the lungs may occur during ingestion or vomiting, resulting in lung injury.

Skin Contact: Brief contact may cause severe skin burns. Symptoms may include pain, severe local redness, swelling and tissue damage. Corrosive action causes burns and frequently deep ulcerations with subsequent scarring. Prolonged contact destroys tissue. May cause dermatitis. Sodium hydroxide can penetrate to deeper layers of skin and corrosion will continue until removed. Burns may not be immediately painful; onset of pain may be delayed minutes to hours.

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Eye Contact: Causes severe eye burns. Small quantities can result in permanent damage and/or loss of vision. Damage can range from severe irritation and mild scarring to blistering, disintegration, ulceration, severe scarring and clouding. Conditions that affect vision such as glaucoma and cataracts are possible late developments. In severe cases, there is progressive ulceration and clouding of eye tissue, which may lead to permanent blindness.

Additional Information: No additional information available.

Acute Test of Product:

Acute Oral LD50: Not Available.

Acute Dermal LD50: Not Available.

Acute Inhalation LC50: Not Available.

Carcinogenicity:

Ingredients IARC - Carcinogens ACGIH - Carcinogens

Sodium Hydroxide Not listed.

Ethylene Glycol Monobutyl-Ether Confirmed Animal Carcinogen with Unknown Relevance to Humans

Carcinogenicity Comment: No additional information available.

Reproductive Toxicity/ Teratogenicity/ Embryotoxicity/ Mutagenicity: Not Available.

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12. ECOLOGICAL INFORMATION

Ecotoxicological Information:

Ingredients Ecotoxicity - Fish Species

Data

Acute Crustaceans Toxicity: Ecotoxicity - Freshwater

Algae Data

Sodium Hydroxide LC50 (Rainbow Trout) 1149 mg/l LC50 (Chinook Salmon) 152 mg/l

Water Not Available. Not Available. Not Available.

Other Information:

Toxic to aquatic life. May increase pH of waterways and adversely effect aquatic life.

Ingredients Ecotoxicity -

Freshwater Algae Data

Ethylene Glycol Monobutyl-Ether EC50 (Scenedesmus subspicatus) 500 mg/L

Other Information: Material is readily biodegradable. Passes OECD test(s) for ready biodegradability. The rate constant for the vapor phase reaction with photochemically produced hydroxyl radicals at 25C is estimated to be: 2.12E-11 cm³/molecule-sec. at 25°C Material is ultimately biodegradable. Reaches > 70% mineralization in OECD test(s) for inherent biodegradability. Biodegradation reached in Modified Zahn-Wellens/EMPA Test (OECD Test No. 302 B) after 28 days: 77 - 90%. Mean degradation reached in Continuous Activated Sludge assay (OECD Test No. 303 A): 96.7% in 3 hr. Biodegradation reached in Modified MITI Test (I) (OECD Test No. 301 C) after 28 days: 88%. Bioconcentration potential is low (BCF < 100 or Log Pow < 3). Potential for mobility in soil is very high (Koc between 0 and 50). Soil organic carbon/water partition coefficient (Koc) is estimated to be: 26-224 Henry's Law Constant (H) is estimated to be: 5.27 E-06 atm-m³/mole at 25°C. Theoretical Oxygen Demand (THOD) - calculated:: 2.10 mg/mg Octanol/Water Partition Coefficient - Measured: , 1.51 - 1.79 . Octanol/Water Partition Coefficient - Calculated by Structural Fragment Metho

13. DISPOSAL CONSIDERATIONS

Disposal of Waste Method: Disposal of all wastes must be done in accordance with municipal, provincial and federal regulations. Properly neutralized liquid residues (pH 6 to 9) may be disposed of in waste water treatment facilities which allow the discharge of neutral salt solutions.

Contaminated Packaging: Empty containers should be recycled or disposed of through an approved waste management facility.

14. TRANSPORT INFORMATION

DOT (U.S.):

DOT Shipping Name: SODIUM HYDROXIDE SOLUTION

DOT Hazardous Class 8

DOT UN Number: UN1824
DOT Packing Group: II
DOT Reportable Quantity (lbs): Not Available.
Note: No additional remark.
Marine Pollutant: No.

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14. TRANSPORT INFORMATION

TDG (Canada):
TDG Shipping Name: SODIUM HYDROXIDE SOLUTION
Hazard Class: 8
UN Number: UN1824
Packing Group: II
Note: No additional remark.
Marine Pollutant: No.

15. REGULATORY INFORMATION

U.S. TSCA Inventory Status: All components of this product are either on the Toxic Substances Control Act (TSCA) Inventory List or exempt.

Canadian DSL Inventory Status: All components of this product are either on the Domestic Substances List (DSL), the Non-Domestic Substances List (NDSL) or exempt.

Note: Not available.

U.S. Regulatory Rules
Ingredients CERCLA/SARA - Section
302:
SARA (311, 312) Hazard

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15. REGULATORY INFORMATION

Class:
CERCLA/SARA - Section
313:
Sodium Hydroxide Not Listed. Listed Not Listed.
Water Not Listed. Not Listed. Not Listed.
California Proposition 65: Not Listed.
MA Right to Know List: Listed.
New Jersey Right-to-Know List: Listed.
Pennsylvania Right to Know List: Listed.
WHMIS Hazardous Class:
E CORROSIVE MATERIAL

16. OTHER INFORMATION

Additional Information: This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all the

information required by the CPR.

Disclaimer: NOTICE TO READER:

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