SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: DUZALL DETERGENT
24-hr. Emergency #: (800) 424-9300
US DOT Hazardous Materials Registration No.: 062504-001-008MO
Commercial & Government Entity (CAGE) Code: 0YCK6

CHEMICAL NAMES & SYNONYMS: N/A
FORMULA: Proprietary
CHEMICAL FAMILY: Blended alkaline cleaner

SECTION 2 - INGREDIENTS

<table>
<thead>
<tr>
<th>INGREDIENTS</th>
<th>PERCENT</th>
<th>ADOPTED VALUES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium tripolyphosphate, CAS # 7601-54-9</td>
<td>N/E</td>
<td>N/E - See Regulatory Information, Section 13.</td>
</tr>
<tr>
<td>Sodium Carbonate, CAS # 497-19-8</td>
<td></td>
<td>See Regulatory Information, Section 13.</td>
</tr>
<tr>
<td>Sodium metasilicate, pentahydrate, CAS # 6834-92-0</td>
<td>N/E</td>
<td>N/E - may be treated as sodium hydroxide</td>
</tr>
</tbody>
</table>

NOTE: The exact composition of this product, with respect to the percentages of its’ reported ingredients and the presence of its’ non-regulated ingredients [not reported], is proprietary information and is being withheld. In the event of a medical emergency, total disclosure will be made to the proper authorities.

SECTION 3 - HEALTH HAZARDS IDENTIFICATION

Threshold Limit Value: As indicated in Section 2 (above).

Primary Routes of Entry: Eye/skin contact. Inhalation. Ingestion.

EFFECTS OF OVEREXPOSURE: Eyes: Corrosive to the eyes; may cause burns and possible corneal damage. Skin: Acute exposure: Chronic local effect may consist of multiple areas of superficial irritation of the skin or of primary irritant dermatitis. Inhalation: Breathing may result in varying degrees of irritation or damage to respiratory tract tissues. Ingestion: Corrosive to the mucous membranes of the mouth, throat, esophagus or stomach. Can cause perforation of the esophagus or stomach.

SUPPLEMENTAL HEALTH INFORMATION: Pre-existing eye, skin and respiratory disorders may be aggravated by exposure. Laxative effect reported after repeated oral ingestion of large amounts.

SECTION 4 - FIRST AID MEASURES

EYES: Object is to flush material out of eyes immediately, then seek medical attention. Immediately flush with plenty of water for at least 15 minutes while holding eyelids open to ensure flushing of the entire eye surface. Get medical attention.

SKIN: Immediately wash contaminated areas with plenty of water for at least 15 minutes. Remove contaminated clothing and footwear and wash clothing before reuse. Discard footwear, which cannot be decontaminated. Seek medical attention if symptoms develop or persist.

INHALATION: Remove to fresh air; if breathing is difficult, have trained personnel administer oxygen. If respiration stops, give mouth-to-mouth resuscitation. Get immediate medical attention. (Note: Coughing, sneezing or other symptoms of upper respiratory irritation may serve as a warning of exposure to high airborne concentrations.)

INGESTION: DO NOT INDUCE VOMITING! Rinse mouth with water; give large quantities of water or milk to drink. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Give more liquids. Do not give anything by mouth to an unconscious or drowsy person. Get immediate medical attention. (Because rapid absorption may occur through lungs if aspirated and cause systemic effects, the decision of whether to induce vomiting or not should be made by a physician.)
**SECTION 5 - FIRE & EXPLOSION HAZARDS / FIRE FIGHTING MEASURES**

**Flash Point:** Non-flammable.

**Flammable Limits:** N/A

**Extinguishing Media:** As appropriate for adjacent fire.

**Special Fire Fighting Procedures:** Pressure demand self-contained breathing apparatus should be used by firefighters.

**Unusual Fire and Explosion Hazards:** Protective clothing for skin and eye protection should be worn to protect against alkaline materials.

**SECTION 6 - ACCIDENTAL RELEASE MEASURES**

**Steps to be taken if material is released or spilled:** Sweep, scoop or vacuum up all spilled material, contaminated soil and other contaminated material and place in containers for recovery or disposal. If possible, complete cleanup on a dry basis. After all practical dry cleanup has been done, residual contamination can be flushed with plenty of water.

Surface subject to spills or dusting with this product will become slippery when wet. Exercise extreme caution when cleaning up spills.

**SECTION 7 - HANDLING AND STORAGE**

**Precautions to be taken in handling and storing:** Product is slightly hygroscopic and should be stored in a dry area to prevent moisture pick up and caking. The OSHA and ACGIH Nuisance Dust Limits are stated only to indicate the least stringent airborne dust exposure levels applicable to nuisance dusts. This product may cause skin and eye irritation at exposure concentrations below these limits.

Use normal precautions for handling alkaline, dusty materials by wearing gloves, eye protection and approved dust mask. Avoid breathing dust and contact with eyes and skin. Do not wear contact lenses when using this product. Do not swallow. Store in tightly sealed containers when not in use. Keep dry for product quality assurance. Do not mix with other chemicals.

**SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Respiratory Protection:** Use NIOSH/OSHA approved respiratory protection following manufacturer's recommendations where dust may be generated.

**Ventilation Required:** Where engineering controls are not feasible, use adequate local exhaust ventilation where dust may be generated.

**Protective Clothing:** Eyes: Face shield/goggles or chemical goggles should be worn if excessive dust is generated. Not normally required under normal applications. Skin: Rubber gloves. These may be decontaminated by washing with mild soap and water.

**SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES**

**Appearance:** White, free flowing granular powder

**State:** solid

**Odor:** None

**Solubility in water:** Complete

**pH:** (1% solution) 11.5 - 12.0 typical

**SECTION 10 - STABILITY AND REACTIVITY DATA**

**Stability:** Stable

**Incompatibility:** Product will react with acids liberating low heat.

**Hazardous Decomposition:** N/D

**Hazardous Polymerization:** Will not occur.

**SECTION 11 - TOXICOLOGICAL INFORMATION**

**Toxicological Information:** Sodium Tripolyphosphate: Acute Oral LD(50) = 5400 mg/kg (rat). Acute Dermal: LD(50) = <7940 mg/kg (rabbit). Sodium silicate: Acute Oral: LD(50) = 1470 mg/kg (rat). Acute Dermal: LD(50) = 250 mg/24 hr dosage (rabbit). Sodium carbonate: Acute Oral: LD(50) = 2.8 gm/kg (rat).
MATERIAL SAFETY DATA SHEET

MSDS/ DUZALL DETERGENT, PAGE 3, SECTION 11 CONT.

Chemical Fate Information: N/D

SECTION 12 - ECOLOGICAL INFORMATION

Inorganic phosphates in contact with the soil, sub-surface or surface waters may be taken up by plants and utilized as essential nutrients. Phosphates may also form precipitates, usually with calcium or magnesium. The resultant compounds are insoluble in water and become a part of the soil or sediment. The term biodegradability, as such, is not applicable to inorganic compounds.

Aquatic toxicity Data: 96 hr LC50 > 100 mg/L, non-toxic (rainbow trout, inland silversides and mysid shrimp). FMC Studies I89-1081, -1082 & - 1083.
48 hr EC50 > 100 mg/L, non-toxic (daphnia magna). FMS Study I89-1084.

SECTION 13 - DISPOSAL CONSIDERATIONS

Sweep, scoop or vacuum up all spilled material, contaminated soil and other contaminated material and place in containers for recovery or disposal. If possible, complete cleanup on a dry basis. After all practical dry cleanup has been done, residual contamination can be flushed with plenty of water.

Local regulations must be reviewed to ensure compliance with any procedure or chemical requirements not herein mentioned or which may vary from the procedures herein described.

SECTION 14 - TRANSPORT INFORMATION

Proper Shipping Name: Corrosive solids, n.o.s. (disodium trioxosilicate, pentahydrate)

Hazard Class: 8

UN#: UN1759

Packing Group: III

Sticker Required: Corrosive

SECTION 15 - REGULATORY INFORMATION

(Notice: The information herein is presented in good faith and believed to be accurate as of the effective date shown below. However, no warranty, expressed or implied is given. Regulatory requirements are subject to change and may differ from one location to another; it is the buyer’s responsibility to ensure that its activities comply with federal, state or provincial, and local laws. The following specific information is made for the purpose of complying with numerous federal, state or provincial, and local laws and regulations.)

RCRA - RESOURCE CONSERVATION AND RECOVERY ACT (HAZARDOUS WASTE): The act that mandated the development of hazardous waste regulations. These regulations can be found in 40 CFR 260-281.

No ingredients listed.

REPORTABLE QUANTITIES - CERCLA (ACCIDENTAL RELEASE): The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) identifies a list of substances that have an adverse effect if released to the environment. The Act designates the reportable quantity (RQ) for each of these substances, and the notification requirements for releases or spills. When a specified amount of a chemical is released or spilled, the National Response Center must be notified. This specified amount is the “reportable quantity.” The reportable quantity for each chemical is based on the severity of environmental hazard it presents.

Sodium tripolyphosphate - 5000 lbs.

THRESHOLD PLANNING QUANTITIES (SARA - COMMUNITY RIGHT TO KNOW) EXTREMELY HAZARDOUS SUBSTANCE LIST: The Extremely Hazardous Substance (EHS) list and planning quantities trigger certain reporting requirements to emergency planning agencies. If your facility has a listed hazardous substance in amounts equal to or greater than the quantities shown on the index, the regulations of 40 CFR 355 and 370 apply to you.

No ingredients listed.

SARA TITLE III, SECTION 313: EPA has developed a list of over 320 regulated chemicals and 22 chemical categories. An entry in this section, indicates that a given chemical appears on this list. The entry will consist of a date, which identifies the effective date for reporting; and a “de minimis” amount. This amount, 1% or 0.1%, indicates the minimum amount of a chemical that must be present in a mixture to trigger reporting.

No ingredients listed.

RISK MANAGEMENT PROGRAM - EPA: On January 31, 1994, a new EPA rule was finalized. It was required under section 112(r) of the Clean Air Act. It is aimed at preventing accidental chemical releases. This first rule presented a list, composed of three categories: 77 toxic substances, 63...
flammable substances, and explosive substances with a mass explosion hazard as listed by DOT. The complete regulation can be found in 40 CFR Part 68 - Chemical Accident Prevention Provisions.

No ingredients listed.


Sodium carbonate 1%
Sodium metasilicate 1%

DOT: The Department of Transportation (DOT) regulates those substances that present a potential hazard during transportation. There may be labeling, special packaging, and/or placarding required.

Sodium tripolyphosphate, disodium trioxosilicate pentahydrate.

NFPA - NATIONAL FIRE PROTECTION ASSOCIATION: The National Fire Protection Association (NFPA) is a nonprofit, educational organization. The goal of NFPA is to promote the science of fire protection and prevention. With this aim, NFPA has developed information on the hazardous properties of many chemicals, which enables the user to come up with safe procedures during the chemicals' use, storage, and transportation. There are three categories of hazards: Health (H), flammability (F), and reactivity (R). Within each category, there are numerical ratings from 0 - 4, with 0 indicating no hazard, 4 indicating severe hazard.

Health - 2 / Fire - 0 / Reactivity 1

HAZARD COMMUNICATION: OSHA's Hazard Communication Standard initially went into effect November 1985/May 1986. It is OSHA's most comprehensive worker protection regulation. It provides for information and training for workers encountering chemical exposures in the workplace. The standard requires the use of labels and Material Safety Data Sheets for all regulated chemicals.

National Toxicology Program (NTP): A list of carcinogens. No ingredients listed.

IARC - International Agency For Research On Cancer: Another carcinogen list. No ingredients listed.

Subpart Z - OSHA: (Found at 1910.1000-.1101) If a chemical is on this list, it means there are specific training requirements on the handling, etc. See Section 2.

Threshold Limit Values: ACGIH: Threshold limit values (TLVs) which refer to airborne concentrations of substances and represent conditions under which nearly all workers must be repeatedly exposed day after day without adverse effect. See Section 2.

Process Safety Management - OSHA: OSHA established a regulation (1910.119) to monitor and control safety at certain types of industrial facilities. Compliance is triggered by specified quantities of specific chemicals.

No ingredients listed.

Proposition 65 - California: Proposition 65 refers to an initiative passed by the California voters in the November 1986 elections. It is the Safe Drinking Water and Toxic Enforcement Act of 1986. One of the components is the listing of chemicals known to cause cancer or reproductive toxicity. Twelve months after a chemical is listed, a person in the course of doing business must warn another person who may consume, come into contact with, or otherwise be exposed to that chemical.

No ingredients listed.

The New Clean Air Act - Hazardous Air Pollutants: This rule regulates the emissions of 112 of the organic chemicals identified in the Cats list of 189 hazardous air pollutants.

No ingredients listed.

SECTION 16 - OTHER INFORMATION

AS A GENERAL RULE, PREVENT AND PROTECT THIS PRODUCT FROM UNAUTHORIZED USE FOR INDUSTRIAL USE ONLY !!!!!!

END OF REPORT

NAME: Robert C. Jaudon
(636) 296-3131, 296-3888

DATE ISSUED: 11/02/06

< = LESS THAN
> = MORE THAN
UNK = UNKNOWN

DATE REVISED: N/A = NOT APPLICABLE
N/D = NOT DETERMINED
N/E = NOT ESTABLISHED

PAGE 4
In accord with the philosophy established by the Occupational Safety and Health Administration's Hazard Communication Final Rule, 1985, this Material Safety Data Sheet has been designed to emphasize the hazardous portions (ingredient[s]) utilized in the total formulation. As a result, the information herein stresses the most hazardous component(s) only. By this approach, we feel better knowledge and awareness should substantially contribute to reduce exposure and injury to workers involved with the use of this product. The information supplied in this document is presented for exactly this purpose. As required by law, this data should be thoroughly read and made available to anyone who may be responsible for handling this material. All data provided relates to the concentrated product as shipped. Actual usage rates and further dilution will, in most cases, greatly reduce, if not eliminate, the potential for worker injury. Any and all chemical products should be handled with extreme care and only by authorized and informed personnel. Each aspect of your operation should be examined to determine if, or where, additional precautions may be necessary. All health and safety information contained in this MSDS should be provided to your employees or customers. It is your responsibility to use this information to develop appropriate work practice guidelines and employee instructional programs for your operation.

The information and recommendations provided in this Material Safety Data Sheet have been obtained from data we believe to be reliable. We provide no warranties, expressed or implied, or accept no responsibility for loss associated with the use or handling of this product. This information is offered for your review and consideration. Efforts should be extended to determine the applicability of this product for your specific intended use. We know of no medical condition, other than those noted in this Material Safety Data Sheet, which are generally recognized as being aggravated by exposure to this product.

**REASON FOR REVISION:**