

**SPARTAN CHEMICAL COMPANY, INC.
WHMIS MATERIAL SAFETY DATA SHEET**

SECTION I: PRODUCT INFORMATION

**PRODUCT IDENTIFIER
TOUGH DUTY**

PRODUCT USE: Industrial Strength All Purpose Cleaner & Degreaser

MANUFACTURER'S NAME & ADDRESS
Spartan Chemical Company, Inc.
1110 Spartan Drive, Maumee, OH 43537 USA

MEDICAL EMERGENCY TELEPHONE
888/314-6171 (24 Hours)
PRODUCT INFORMATION
800/537-8990

SECTION II: HAZARDOUS INGREDIENTS

CAS REGISTRY NO.	% W	CHEMICAL NAME(S)	TLV			LD50	LC50
			TWA mg/m ³	STEL mg/m ³	Ceiling mg/m ³		
112-34-5	1-5	Diethylene glycol butyl ether	----	Not Established	----	Not available	Not available
68991-48-0	1-5	Alcohol ethoxylate	----	Not Established	----	Not available	Not available

SECTION III: PHYSICAL DATA

BOILING POINT 100°C (212°F)	SPECIFIC GRAVITY (H₂O = 1) 1.00	PERCENT SOLID BY WEIGHT 1-5
VAPOUR PRESSURE Not established	EVAPORATION RATE (butyl acetate = 1) < 1	FREEZING POINT Not available
VAPOUR DENSITY (AIR = 1) Not established	SOLUBILITY IN WATER Complete	ODOUR THRESHOLD Not available
pH 11.5-12.0	APPEARANCE AND ODOUR Clear pink liquid, floral odor	PHYSICAL STATE GAS__ LIQUID <u>X</u> SOLID____
COEFFICIENT OF WATER/OIL DISTRIBUTION Not available		

SECTION IV: FIRE & EXPLOSION DATA

FLASH POINT >100 °C (212°F)	METHOD USED ASTM - D56	FLAMMABLE LIMITS Not established
EXTINGUISHING MEDIA Water, CO2 or dry chemical	CONDITIONS OF FLAMMABILITY Not applicable	AUTO-IGNITION TEMPERATURE Not applicable
HAZARDOUS COMBUSTION PRODUCTS Not established		EXPLOSION DATA Not applicable
SPECIAL FIRE FIGHTING PROCEDURES Use self-contained breathing apparatus for maximum respiratory protection. Cool fire-exposed containers with water spray.		
UNUSUAL FIRE AND EXPLOSION HAZARDS Product does not support combustion. Use extinguishing media appropriate for surrounding fire.		

SECTION V: REACTIVITY DATA

STABILITY: STABLE X **CONDITIONS OF INSTABILITY** **CONDITIONS OF REACTIVITY**
Not established Not established

INCOMPATIBILITY (MATERIALS TO AVOID) Strong acids and oxidizing agents
HAZARDOUS DECOMPOSITION PRODUCTS Carbon dioxide, carbon monoxide

SECTION VI: TOXICOLOGICAL PROPERTIES

PRIMARY ROUTES OF ENTRY: Eye Contact, Skin Contact, Ingestion, Inhalation

EXPOSURE LIMIT

Not established for mixture.

EFFECTS OF ACUTE EXPOSURE:

EYE CONTACT: Causes eye irritation with symptoms such as pain, redness and swelling of the conjunctiva.

INGESTION: May be harmful if swallowed. Symptoms may include pain, nausea, vomiting and diarrhea.

SKIN CONTACT: Causes skin irritation with symptoms such as pain, redness and swelling. Harmful if absorbed through the skin.

INHALATION: Breathing vapors or mist may cause respiratory irritation.

EFFECTS OF CHRONIC EXPOSURE

Contains 2-butoxyethanol which may cause headache, nausea, dizziness and drowsiness. Exposure to 2-butoxyethanol may cause blood, liver and kidney effects based on animal data.

IRRITANCY OF PRODUCT

Causes skin and eye irritation

SENSITIZATION TO PRODUCT

Not available

CARCINOGENICITY

No

REPRODUCTIVE TOXICITY

Not available

TERATOGENICITY

Not available

MUTAGENICITY

Not available

SYNERGISTIC PRODUCTS

Not available

SECTION VII: PREVENTIVE MEASURE

PERSONAL PROTECTIVE EQUIPMENT / ENGINEERING CONTROLS:

Wear rubber or other impervious gloves and splash goggles. Provide good general ventilation. Local exhaust ventilation may be necessary for some operations. If exposure limits (see Section II) can not be maintained by ventilation, use of a NIOSH approved respirator suitable for the conditions of use and chemicals in Section II should be considered.

LEAK AND SPILL PROCEDURE: Small spills of one gallon or less may be flushed with plenty of water into sanitary sewer (If permitted by local sewer regulations). Dike and contain larger spills with inert material and transfer to containers for disposal. Keep spill out of storm sewers and waterways.

WASTE DISPOSAL METHOD: Assure conformance with applicable regulations.

HANDLING PROCEDURES: Avoid contact with eyes, skin and clothing. Avoid breathing product vapors or mist.

Do not swallow. Use with adequate ventilation. Wash thoroughly after handling.

STORAGE REQUIREMENTS: Keep container closed when not in use. Do not freeze. Do not store above 49°C (120°F). Do not mix with other chemicals. Keep out of reach of children.

SPECIAL SHIPPING INFORMATION: None, Shipping Description: Non-Hazardous Products

SECTION VIII: FIRST AID MEASURES

EYES: Flush eyes with water for at least 15 minutes. Remove contact lenses. Get medical attention.

SKIN: Remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical attention if irritation persists. Wash contaminated clothing before reuse.

INGESTION: Do not induce vomiting. Drink one or two glasses of water to dilute product. Get medical attention. Do not give anything by mouth to an unconscious person.

INHALATION: In case of respiratory irritation, move person to fresh air. Get medical attention if irritation persists.

SECTION IX: PREPARATION INFORMATION

TOUGH DUTY

DATE OF PREPARATION June 1, 2013

SUPERCEDES June 1, 2010

PREPARED BY Ronald T. Cook / Manager, Regulatory Affairs / Spartan Chemical Company, Inc.

TELEPHONE NUMBER 800/537-8990