

**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		
111-76-2	5-10	2-Butoxyethanol	120 (skin)	----	----	Not available	Not available
9016-45-9	1-5	Nonylphenol ethoxylate	----	----	----	Not available	Not available
67-63-0	1-5	Isopropyl alcohol	980	1225	----	Not available	Not available
64-02-8	1-5	Tetrasodium ethylenediaminetetraacetate	----	----	----	Not available	Not available

SECTION III: PHYSICAL DATA

BOILING POINT 95 °C (203°F)	SPECIFIC GRAVITY (H₂O = 1) 1.005	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 Dark 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 None		
UNUSUAL FIRE AND EXPLOSION HAZARDS None known		

SECTION V: REACTIVITY DATA

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

INCOMPATIBILITY (MATERIALS TO AVOID) Strong oxidizers
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.

INGESTION: May be harmful if swallowed. Symptoms may include nausea, diarrhea, and intestinal upset.

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 quantities may be flushed into sanitary sewer. Larger quantities should be picked up with inert absorbent material and disposed on in accordance with applicable regulations.

WASTE DISPOSAL METHOD: Assure conformance with applicable regulations...

HANDLING PROCEDURES: Avoid contact with eyes, skin and clothing. Do not swallow. Avoid breathing product vapors or mist. Wash thoroughly after handling.

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

SPECIAL SHIPPING INFORMATION: None, Shipping Description: Cleaning compounds, liquid, n.o.s.

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. Flush skin with water for at least 15 minutes. Get medical attention if irritation persists. Wash contaminated clothing before reuse.

INGESTION: Do not induce vomiting unless advised to do so by a doctor or poison control center. 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 or dizziness, move person to fresh air. Get medical attention if irritation persists.

SECTION IX: PREPARATION INFORMATION

TOUGH DUTY

DATE OF PREPARATION June 19, 2003

SUPERCEDES August 7, 1999

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

TELEPHONE NUMBER 800/537-8990