

200 Yellow Place • Rockledge, FL 32955

PH: (321) 631-3550 • FAX: (321) 631-3552

E-mail: info@mainstream-engr.com

MATERIAL SAFETY DATA SHEET

PREPARATION DATE: 01/25/2000
REVISION DATE: 06/05/2009 REV. 1

SECTION 1 - PRODUCT & COMPANY INFORMATION

PRODUCT NAME: QwikTreat
PRODUCT NO.: QT2403
DESCRIPTION: time-released condensate pan treatment
USE: clean condensate pans
APPEARANCE: gray-white tablet

MANUFACTURER: Mainstream Engineering Corp.
200 Yellow Place
Rockledge, Florida 32955

INFORMATION TELEPHONE: 321-631-3550
EMERGENCY TELEPHONE: 800-424-9300

SECTION 2 - PRODUCT COMPOSITION INFORMATION

COMPONENT	COMPOSITION	% BY WEIGHT
Inhibitors & Binders	*	95%
Cleaners & Lubricants	*	5%

* TRADE SECRET - PROPRIETARY FORMULA. Specific chemical identities are withheld as a trade secret under the provisions of OSHA hazard communication standard 29 CFR 1910.1200.

SECTION 3 - HAZARDS IDENTIFICATION

PRECAUTIONARY STATEMENTS: Do not breathe dust; Harmful; Harmful if swallowed; Irritating to eyes, respiratory system and skin; Light sensitive. Contact with skin causes irritation and possible burns, especially if the skin is wet or moist. Dust may be strong oxidizer. Moisture sensitive. May cause harm to the unborn child; Keep away from combustible material. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice; Wear suitable protective clothing. Wash hands with soap and water after handling and/or wear gloves.

HAZARDOUS MATERIALS: None of the ingredients are considered highly hazardous by OSHA.

SHIPPING: The chemicals and/or the quantities in this product are not regulated by DOT.

POTENTIAL HEALTH EFFECTS:

Eye: Dust may cause eye irritation or burns. Contains copper(II) oxide which may result in corneal injury or cause conjunctivitis.

Skin: Contact with skin causes irritation and possible burns, especially if the skin is wet or moist. If absorbed, may cause symptoms similar to those for ingestion.

Ingestion: Causes gastrointestinal irritation with nausea, vomiting and diarrhea. May be harmful if swallowed. Contains salicylic acid which may cause "salicylism" with effects similar to skin absorption and may cause harm to the unborn child. Contains EDTA (ethylenediamine tetraacetic acid) which may cause systemic toxicity with acidosis; exposure to large amounts may cause kidney injury, muscle cramps, bone marrow depression, and a generalized allergic reaction; may cause reproductive and fetal effects. Contains copper(II) oxide which if consumed in large amounts may cause central nervous system depression, kidney damage, and liver damage; may cause circulatory system failure; may cause vascular collapse and damage.

Inhalation: Dust is irritating to the respiratory tract. Contains copper(II) oxide which may cause ulceration and perforation of the nasal septum if inhaled in excessive quantities. Cu(II)O decomposes at 1500 C and inhalation of fumes may cause metal fume fever, which is characterized by flu-like symptoms with metallic taste, fever, chills, cough, weakness, chest pain, muscle pain and increased white blood cell count.

Chronic: Contains salicylic acid which may cause salicylism with effects similar to those of skin absorption. Contains salicylic acid and EDTA which may cause reproductive and fetal effects. Contains copper(II) oxide which may cause dermatitis in prolonged or repeated skin contact. Individuals with Wilson's disease are unable to metabolize copper and the accumulation of Cu in various tissues and may result in liver, kidney, and brain damage.

Target Organs: Contains copper(II) oxide which has the following target organs: kidneys, central nervous system, liver, red blood cells.

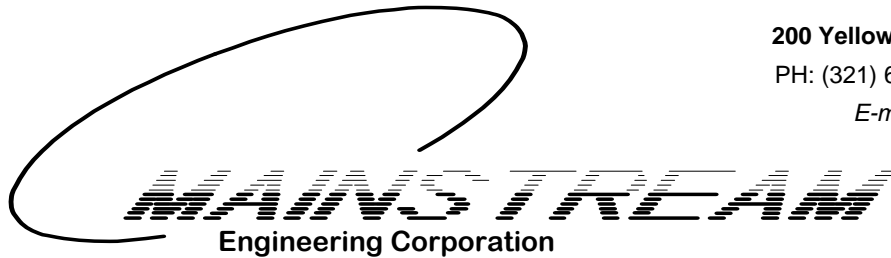
Carcinogenicity: None of the ingredients are listed by ACGIH, IARC, NIOSH, NTP, or OSHA as a carcinogen.

SECTION 4 - EFFECTS OF OVEREXPOSURE

May be harmful if swallowed. May cause reproductive and fetal effects. Ingestion can cause gastro-intestinal irritation, nausea, vomiting, or diarrhea. May cause eye and skin irritation or burns. May cause severe respiratory irritation. Ingestion may result in an allergic reaction. Powder may cause central nervous system depression, liver and kidney damage, severe eye irritation. May cause blood abnormalities. Exposure to large amounts may cause kidney injury, muscle cramps, bone marrow depression, and a generalized allergic reaction.

SECTION 5 - EMERGENCY & FIRST-AID PROCEDURES

SKIN: Remove contaminated clothing. Wash exposed area with soap and water for at least 15 minutes. Launder clothing before reuse.



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EYES: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids. Get medical aid immediately.

INGESTION: If victim is conscious and alert, give 2-4 cupfuls of milk or water. Get medical aid. Induce vomiting by giving one teaspoon of Syrup of Ipecac.

INHALATION: Remove from exposure to fresh air immediately. Administer oxygen if deemed necessary or perform CPR. Contact a physician.

SECTION 6 - PHYSICAL AND CHEMICAL DATA

PHYSICAL STATE: Solid tablet

APPEARANCE: Gray to charcoal

ODOR: Odorless

PH: Not available.

VAPOR PRESSURE: Negligible

LOWEST FREEZING/MELTING POINT: 158 C

LOWEST DECOMPOSITION TEMPERATURE: 130 C

SOLUBILITY IN WATER: slightly soluble to insoluble

SECTION 7 - REACTIVITY DATA

CHEMICAL STABILITY: Stable at room temperature in closed containers under normal storage and handling conditions. Contains EDTA which decarboxylates above 150 C.

CONDITIONS TO AVOID: Temperatures above 130 C, incompatible materials, light, strong oxidants, organic materials, reducing agents.

INCOMPATIBILITIES WITH OTHER MATERIALS: Contains salicylic acid which is incompatible with iron salts, spirit nitrous ether, lead acetate, iodine, and oxidizing materials. Contains EDTA which is incompatible with strong oxidizing agents, strong bases, copper, copper alloys, aluminum, nickel. Contains copper(II) oxide which is incompatible with aluminum, boron, cesium acetylene carbide, hydrazine, magnesium, phospham, potassium, rubidium acetylene carbide, sodium, titanium, and zirconium. Cu(II)O forms explosive acetylides with acetylene in caustic solutions and exposure to moist air at > 212F can result in spontaneous combustion.

HAZARDOUS DECOMPOSITION PRODUCTS: Contains salicylic acid which can produce carbon monoxide, irritating and toxic fumes and gases, carbon dioxide. Contains EDTA which can produce nitrogen oxides, carbon monoxide, carbon dioxide, ammonia and/or derivatives above 248 C. Contains copper(II) oxide which deposits at 1500 C to produce copper fumes.

HAZARDOUS POLYMERIZATION: Has not been reported.

SECTION 8 - FIRE AND EXPLOSION INFORMATION

GENERAL INFORMATION: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Large amounts of dust from the product at sufficient concentrations can form explosive mixtures with air.

Strong oxidizer. Contact with combustible materials may cause a fire.

EXTINGUISHING MEDIA: Contains copper(II) oxide: Use water only! DO NOT use dry chemicals, CO₂, Halon or foams.

AUTOIGNITION TEMPERATURE: 535 C (995 F)

FLASH POINT: Contains salicylic acid which has a flashpoint of 157 C (314.6 F).

NFPA RATING (health-flammability-reactivity): Contains salicylic acid with a 0-1-1 rating and lower explosion limit of 1.1.

SECTION 9 - HANDLING, STORAGE, AND DISPOSAL

EXPOSURE LIMITS: Contains Cu(II)O which has the following limits: ACGIH, 0.2 mg/m³; NIOSH, 0.1 mg/m³ TWA, 100 mg/m³ IDLH; OSHA-Final PELs, none listed.

SPILLS/LEAKS: Vacuum or sweep up material and place into a suitable disposal container. Avoid generating dusty conditions. Remove all sources of ignition. Provide ventilation.

HANDLING: Wash thoroughly and immediately after handling or wear gloves. Use only in a well ventilated area. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation. Pregnant women should not handle product.

STORAGE: Keep away from sources of ignition. Do not store in direct sunlight. Store in a cool, dry, well-ventilated area away from incompatible substances. Store protected from moisture.

DISPOSAL: Dispose of in a manner consistent with federal, state, and local regulations. RCRA D-Series Maximum Concentration of Contaminants: None listed. RCRA D-Series Chronic Toxicity Reference Levels: None listed. RCRA F-Series: None listed. RCRA P-Series: None listed. RCRA U-Series: None listed.

SECTION 10 - TOXICOLOGICAL INFORMATION

LD50/LC50: Contains EDTA which has an Oral, mouse, LD50 of 45 mg/kg. Contains salicylic acid which has an Oral, rat, LD50 of 891 mg/kg.

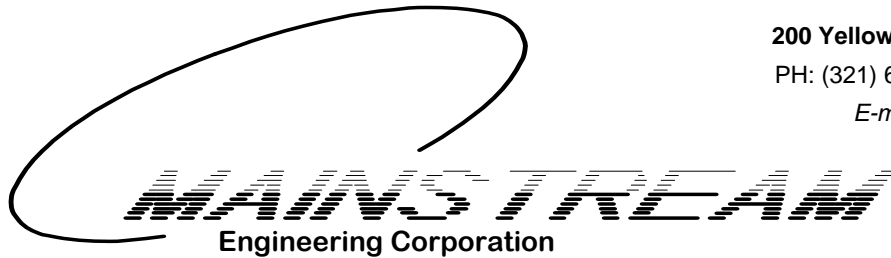
CARCINOGENICITY: None of the ingredients are listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

EPIDEMIOLOGY: No information reported

TERATOGENICITY: Contains salicylic acid which is an experimental teratogen. Contains EDTA which has the following measured effects: Stunted fetus, orl-rat TDLo=7632mg/kg. Specific developmental abnormalities: cardiovascular, craniofacial, musculoskeletal, respiratory, and urogenital, orl-rat TDLo=7632mg/kg.

REPRODUCTIVE EFFECTS: Contains salicylic acid for which experimental reproductive effects have been reported. Contains EDTA which has undergone Fertility tests: Post-implantation mortality, orl-rat TDLo=7632mg/kg.

NEUROTOXICITY: No information reported.



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MUTAGENICITY: Contains EDTA for which the following has been reported: Cytogenetic Analysis: ipn-mouse 50mmol/L. DNA Inhibition: hamster fibroblast 500ug/L, rabbit kidney 250umol/L.

ECOTOXICITY: Contains EDTA for which the following has been reported: Fish toxicity: LC50 (96hr) bluegill sunfish, channel catfish 129-159 mg/l; LC50 (24hr) rainbow trout 340 mg/l. Invertebrate toxicity: LC50 (24hr) Artemia salina 200 and 280 mg/l for saltwater and freshwater, respectively (Jarcovic, Arch. Fischereiwiss. 1969, 20, 178-181). Toxicity threshold, cell multiplication inhibition Pseudomonas putida 105 mg/l, Scendesmus quadricauda 11 mg/l, Entosiphon sulcatum 36 mg/l (Bringmann, G. et al, Water Res. 1980, 14, 231-241).

ENVIRONMENTAL FATE: Contains EDTA which has a 5 day Biological Oxygen Demand (BOD) of 1%. Contains salicylic acid which Biodegrades.

SECTION 11 - ADDITIONAL INFORMATION

EPA TSCA: All ingredients listed on the TSCA Inventory.

OSHA: None of the chemicals in the product are considered highly hazardous.

Chemical Test Rules: None of the chemicals in the product are under a Chemical Test Rule.

Health and Safety Reporting List: None of the chemicals in the product are on the Health and Safety Reporting List.

DOT: The chemicals and/or the quantities in this product are not regulated by DOT.

Clean Water Act: The chemicals of this product are either not listed as Hazardous Substances or they are below the reportable quantities per 40 CFR 117. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

Clean Air Act: This product does not contain any hazardous air pollutants, or Class 1 or Class 2 ozone depleters.

The information contained herein is believed to be accurate and is offered in good faith. The above information is, in part, based on material safety data sheets supplied by the vendors of the raw materials used in this product. Because product use is beyond our control, no warranty is given, expressed, or implied. Mainstream Engineering Corporation cannot assume any liability for the use of information contained herein or from damage resulting from handling or contact with the above product. To determine applicability or effect of any law or regulation with respect to the product, users should consult a legal advisor or appropriate governmental agency.