

MATERIAL SAFETY DATA SHEET

Product Name DCT HEAVY DUTY DEGREASER

MSDS Date March 29, 2011

Revision No. 12

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SECTION 1 **PRODUCT AND COMPANY IDENTIFICATION**

PRODUCT

Product Name	DCT Heavy Duty Degreaser
Product ID Number	130010
Product Description	Food Grade Industrial Cleaner

COMPANY IDENTIFICATION

Supplier	Diversified Chemical Technologies, Inc. 15477 Woodrow Wilson Detroit, MI 48238 (313) 867-5444
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Product Technical Information (313) 867-5444

24 Hour Emergency Phone Number (Health & Safety; Transportation) CHEMTREC - (800) 424-9300

SECTION 2 **COMPOSITION / INFORMATION ON INGREDIENTS**

Hazardous Ingredients	CAS Number	OSHA PEL	ACGIH TLV	OTHER	% WT
Sodium tripolyphosphate	7758-29-4		5 mg/m3		1 – 10
Tetrapotassium diphosphate	7320-34-5				1 – 5
TS 1077 – Trade Secret		15 mg/m3	10 mg/m3 total dust		
		5 mg/mn3	5 mg/m3 respirable dust		1 – 5
TS 1068 – Trade Secret					1 – 5
TS 1038 – Trade Secret		100 ppm	100 ppm	150 ppm STEL	1 – 5
TS 1063 – Trade Secret		1 ppm EtO			1 – 5
TS 1017 – Trade Secret			2 mg/m3		1 – 10
Potassium hydroxide 45%	1310-58-3	2 mg/m3	2 mg/m3 C		1 – 5
Sodium hydroxide 50%	1310-73-2	2 mg/m3 C	2 mg/m3 C		1 – 5

SECTION 3 **HAZARDS IDENTIFICATION**

******EMERGENCY OVERVIEW******

CORROSIVE LIQUID

Harmful if swallowed.

Can cause chemical burns to eyes, skin and/or respiratory tract upon direct contact.
Can be irritating to eyes, skin and/or respiratory tract if contact is frequent or prolonged.

PRIMARY ROUTES OF EXPOSURE Eyes, Skin, Inhalation, Ingestion

TARGET ORGANS Eyes, Skin, Respiratory System

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SECTION 3 HAZARDS IDENTIFICATION continued

POTENTIAL HEALTH EFFECTS**Acute Effects**

Inhalation	Can cause chemical burns upon direct contact. Can cause irritation to respiratory tract upon prolonged, repeated exposures.
Eye	Can cause chemical burns upon direct contact. Can cause irritation to eyes upon prolonged, repeated exposures.
Skin	Can cause chemical burns upon direct contact. Can cause irritation to skin upon prolonged, repeated exposures.
Ingestion	Harmful if swallowed.

Chronic Effects Product has not been tested as a whole to determine its long-term effects. The product does contain ingredients that potentially may affect the following target organs as a result from repeated excessive exposures: Eyes, Skin

Carcinogenicity None **IARC:** N/AP **NTP:** N/AP **OSHA:** N/AP

Medical Conditions Aggravated by Long-Term Exposure Possible pre-existing dermatitis; dry skin conditions

SECTION 4 FIRST AID MEASURES

INHALATION	Remove to fresh air. Rest in half-upright position. Get prompt medical attention if necessary.
EYE CONTACT	Remove contact lenses. Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Get immediate medical attention if chemical burns exist or irritation persists.
SKIN CONTACT	Remove contaminated clothing. Flush skin with plenty of water for at least 15 minutes. Get immediate medical attention if chemical burns exist or irritation persists.
INGESTION	Do not induce vomiting. Wash out mouth with water and obtain medical attention. If conscious, milk or water to drink may be beneficial. Treat symptomatically. Get immediate medical attention. Never give anything by mouth to an unconscious person.

NOTES TO PHYSICIAN Treat symptomatically. It is advisable not to induce vomiting due to the risk of aspiration and it is not usually necessary unless a large amount has been ingested or it has been contaminated with another product. Gastric lavage under supervised medical conditions can be carried out if necessary.

SECTION 5 FIRE FIGHTING MEASURES

Flash Point none
Flash Point Method PMCC
Auto Ignition Temperature N/D
Flammable Limits
LEL N/D

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SECTION 5 **FIRE FIGHTING MEASURES** **continued**

UEL N/D**Appropriate Extinguishing Media** Dry Chemical, Foam, CO2**Unusual Fire or Explosion Hazards** Contaminated water runoff may cause environmental damage. Dike and collect water used to fight fire.**Fire Fighting Instructions** Firefighters should wear self-contained breathing apparatus (SCBA) and protection for skin. Stay away from ends of containers during a fire; containers may explode due to pressure build-up inside if heated. Do not spray water directly into storage containers due to boil over danger. Water may be used to cool nearby containers and surfaces.**Hazardous Combustion Products** Irritating fumes, toxic gases and acrid smoke. Combustion can produce a variety of compounds including oxides of carbon; oxides of potassium; water vapor; unburned hydrocarbons; partially oxidized organic compounds and other unidentified organic and inorganic compounds.

SECTION 6 **ACCIDENTAL RELEASE MEASURES**

NOTIFICATION PROCEDURES In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.**GENERAL** Stop leak if you can do so without risk. Contain spillage and prevent entry into sewer drains and watercourses. Retain all contaminated water for removal and treatment.**SAFETY PRECAUTIONS** Use suitable protective clothing appropriate to spill size and risk of exposure. Refer to Section 8 for further details. Use extreme caution because affected area(s) may be slippery. For industrial use only. Keep out of reach of children.**SPILL OR LEAK PROCEDURES** Neutralize spilled material with weak solution of citric acid if possible. Confine spillage and absorb spilled material with noncombustible, inert absorbent such as sand, clay, or vermiculite and place into DOT-approved containers for later disposal.

SECTION 7 **HANDLING AND STORAGE**

HANDLING Corrosive Liquid

Avoid contact with skin, eyes, and clothing. Wear suitable protective equipment (see Section 8).

Avoid breathing mist or vapor – use only in a well-ventilated area.

Unvented containers may develop pressure – use with caution.

Wash skin thoroughly after handling.

Eyewash stations and safety showers should be easily accessible to area where product is used.

Loading/Unloading Temperature [Ambient]**Transport Temperature** [Ambient]**Transport Pressure** [Ambient]**Static Accumulator** N/D

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SECTION 7 HANDLING AND STORAGE continued

STORAGE Store in dry conditions protected from frost and elevated temperatures – covered storage is recommended.
Keep containers closed when not in use.
Store away from incompatible materials (see Section 10).
Long-term storage temperatures should not exceed 120° F.
Keep away from sparks, heat and flame.
Do not store in reactive metal containers (i.e. aluminum, tin, zinc, galvanized steel or their alloys)

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS The level of ventilation necessary will vary depending upon potential exposure conditions. Control measures to consider:

Ventilation

Adequate ventilation should be provided so that exposure limits are not exceeded (see Section 2 for exposure limits). If heavy misting is present, local exhaust ventilation should be considered in addition to general mechanical ventilation.

ADMINISTRATIVE CONTROLS The level of protection necessary will vary depending upon potential exposure conditions. Control measures to consider:

PERSONAL PROTECTIVE EQUIPMENT Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal use.

Respiratory Protection

If vapors or mists are present and if engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, a NIOSH/MSHA approved respirator may be appropriate. Respirator selection, use and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include: **Air-Purifying Half-Face Respirator with Organic Vapor/Mists Cartridges**

Hand Protection

Any specific glove information provided is based on published literature and glove manufacturer data. Glove suitability and breakthrough time will differ depending on the specific use conditions. Contact the glove manufacturer for specific advice on glove selection and breakthrough times for your use conditions. Inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include: **Chemical-resistant Neoprene or PVC**

Eye Protection

If contact is likely, safety goggles are recommended. If splashing is likely, safety goggles with splash shield are recommended.

Skin and Body Protection

Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include: Long-sleeved shirt, pants and chemical-resistant apron at a minimum. If prolonged or repeated contact is likely, chemical-resistant clothing including boots are recommended.

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SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION continued

Other Protective Equipment Emergency eyewash/safety shower in the immediate area**Specific Hygiene Measures**

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing separate from home laundry and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping. Do not store work clothing and protective equipment in the same locker as personal clothing.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear purple
Physical State	Liquid
Odor	mild fragrance
pH	12.7 – 12.9
Vapor Pressure	N/AV
Vapor Density	N/AV
Boiling Point	N/AV
Melting Point	N/P
Specific Gravity (water = 1)	1.11 – 1.13
Evaporation Rate (water = 1)	N/AV
Volatile Organic Compounds (%)	N/D
Solubility	Complete
Viscosity (cps)	N/D

SECTION 10 STABILITY / REACTIVITY

Chemical Stability

Material is stable and unlikely to react in a hazardous manner during recommended storage conditions and normal conditions of use.

Conditions to Avoid Extreme temperatures**Reactivity / Incompatibility** Strong oxidizing agents, strong acids, light reactive metals (aluminum, zinc, tin, galvanized steel, and their alloys)**Hazardous Decomposition**

Material does not decompose at ambient temperature. Thermal decomposition can produce a variety of compounds, the nature of which will largely depend on the conditions bringing about decomposition. Incomplete combustion or thermal decomposition may be expected to generate such materials as: acrid smoke and irritating fumes; particulate matter and unburned, hydrocarbons; oxides of carbon; oxides of potassium; water vapor; oxidized organic compounds; and other unidentified organic and inorganic compounds.

Hazardous Polymerization Will not occur.

SECTION 11 TOXICOLOGICAL INFORMATION

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SECTION 11 TOXICOLOGICAL INFORMATION continued

Product Toxicological Data

LD50 (Oral)	N/D
LC50 (Inhalation)	N/D
Dermal Toxicity Data (Skin)	N/D
Skin and Eye Irritation Data	N/D
Mutation Data	N/D
Reproductive Effects Data	N/D

Ingredient Toxicological Data

LD50 (Oral)	N/AV
LC50 (Inhalation)	N/AV
Dermal Toxicity Data (Skin)	N/AV
Skin and Eye Irritation Data	N/AV
Mutation Data	N/AV
Reproductive Effects Data	N/AV

SECTION 12 ECOLOGICAL INFORMATION

Product Ecological Information N/AV**Ingredient Ecological Information** N/AV

SECTION 13 DISPOSAL CONSIDERATIONS

EPA Waste ID Number

Product is RCRA-hazardous (D002). However, if this product is altered, it is the responsibility of the user to determine whether the material meets the criteria for hazardous waste at the time of disposal.

Waste Disposal

Neutralization/wastewater treatment is preferred method of disposal. Dispose of contaminated water in a contained waste treatment system. Follow all applicable federal, state, local and provincial regulations. It is the end-user's responsibility to determine the regulatory status of waste at the time of disposal.

Empty Containers

Empty containers may still contain RCRA-regulated residuals; therefore, clean empty containers of any residue per 40CFR261.7 guidelines and either recycle containers or dispose of in normal trash.

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SECTION 14 **TRANSPORT INFORMATION**

LAND (DOT)

DOT Proper Shipping Name	Corrosive Liquids, n.o.s. (contains potassium hydroxide and sodium hydroxide), 8, UN 1760, PG III
DOT Hazard Class	8
DOT Subsidiary Risk	N/AP
DOT ID Number	UN 1760
DOT Packaging Group	III

SEA (IMDG)

IMDG Proper Shipping Name	Corrosive Liquids, n.o.s. (contains potassium hydroxide and sodium hydroxide), 8, UN 1760, PG III
IMDG Hazard Class	8
IMDG Subsidiary Risk	N/AP
IMDG ID Number	UN 1760
IMDG Packaging Group	III

AIR (IATA)

IATA Proper Shipping Name	Corrosive Liquids, n.o.s. (contains potassium hydroxide and sodium hydroxide), 8, UN 1760, PG III
IATA Hazard Class	8
IATA Subsidiary Risk	N/AP
IATA ID Number	UN 1760
IATA Packaging Group	III

Additional Information	DOT Shipping Description for Quantities equal to, or less than one gallon: Corrosive Liquids, n.o.s. (contains potassium hydroxide and sodium hydroxide), 8, UN 1760, PG III, Ltd Qty DOT Label for Quantities equal to, or less than one gallon: none required
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SECTION 15 **REGULATORY INFORMATION**

U.S. Federal Regulations

SARA Title III Section 311/312 Categorization (40 CFR 370)	Acute – Immediate Hazard
SARA Title III Section 313 Categorization (40 CFR 372)	<i>This product contains a chemical(s)</i>
subject to the reporting requirements of Section 313 of Title III of SARA: None	
302 (EHS) TPQ (40 CFR 355)	None
304 CERCLA RQ (302.4)	None
304 EHS RQ (40 CFR 116.4)	None

State Regulations

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SECTION 15	REGULATORY INFORMATION	continued
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California Prop. 65 N/AP

Identification of Prop. 65 Ingredient(s) N/AP

OSHA CLASSIFICATION DANGER

WHMIS CLASSIFICATION D2B (Stylized T) and E (Corrosive Material)

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

National Inventories

TSCA	Yes
CEPA (DSL/NDSL)	Yes
AICS	N /AV
IECSC	N /AV
EINECS	N /AV
ENCS	N /AV
KECI	N /AV
PICCS	N /AV

Additional Information NONE

SECTION 16	OTHER INFORMATION
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N/D = Not Determined
N/A = Not Applicable
N/AV = Not Available

NFPA RATING	Health (Blue): 3	Flammability (Red): 0	Reactivity (Yellow): 0
	Specific Hazard(s) (White): COR/ALK		

HMIS RATING	Health (Blue): 3	Flammability (Red): 0	Reactivity (Yellow): 0
	Personal Protective Equipment: C or D		

THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS

Revision Changes	Changes to Sections 9 and 14
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USER RESPONSIBILITY Each user should read and understand this information and incorporate it in individual site safety programs in accordance with applicable hazard communication standards and regulations.

THE INFORMATION CONTAINED HEREIN IS BASED ON DATA CONSIDERED TO BE ACCURATE. HOWEVER, NO WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF.

Prepared By

Corporate Environment/Health and Safety Department of Diversified Chemical Technologies, Inc. and Subsidiaries