SAFETY DATA SHEET

Preparation Date: Dec 19, 2014
Supersedes Date: Jun 21, 2012 **Version Number:** 05

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

PRODUCT IDENTIFIER

Product Name DCT Delimer Liquid
Product Form Liquid Ready-to-Use
Product ID Number DCT130410
PGP Number 9-85

RECOMMENDED USE AND RESTRICTIONS ON USE

Descaler

COMPANY IDENTIFICATION

Manufacturer Diversified Chemical Technologies, Inc.
15477 Woodrow Wilson, Detroit, MI 48238
(313) 867-5444

EMERGENCY TELEPHONE NUMBER

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

SECTION 2 HAZARDS IDENTIFICATION

GHS CLASSIFICATION

Product has not been tested as a whole to determine its GHS classification. Hazard categories are based on individual ingredient hazard categories. Refer Section 16 for additional GHS Phrases.

Hazard Class	Hazard Category
Skin Corrosion/Irritation	1A – 1C
Serious Eye Damage/Eye Irritation	1
Aquatic Toxicity (Acute)	4

GHS LABEL ELEMENTS

Pictogram

GHS Signal Word
DANGER

GHS Hazard Phrases

Causes severe skin burns and eye damage.
Causes serious eye damage.
Harmful to aquatic life.

GHS Precaution Phrases

Do not breathe dust/fume/gas/mist/vapors/spray.
Wash hands thoroughly after handling.
Wear protective gloves/protective clothing/eye protection/face protection.
Avoid release to the environment.

N/D = Not Determined N/A = Not Applicable N/AV = Not Available

GHS Response Phrases

IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
Wash contaminated clothing before reuse.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

GHS Storage and Disposal Phrases

Store locked up.
Dispose of contents/container to…*licensed professional waste disposal service or contact your regulatory department.*

POTENTIAL HEALTH EFFECTS (Acute and Chronic)

Chronic: Product has not been tested as a whole to determine its acute and long-term effects. The product does contain ingredients that potentially may affect from repeated excessive exposures.

Acute- Inhalation Material may be irritating/destructive to mucous membranes and upper respiratory tract. May be harmful if inhaled.
Acute-Skin Contact Moderate to severe skin irritation in full concentration. May cause severe burns.
Acute-Eye Contact Causes eye irritation. Concentrated solutions may produce corrosive effects.
Acute-Ingestion Ingestion of large amounts may cause gastrointestinal irritation.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

CAS Number	Ingredients*	Percentage Range
77-92-9	Citric acid	1 - 10
5329-14-6	Sulfamic acid	5 - 15

***Identity of other chemicals and/or exact percentage (concentration) has been withheld as a trade secret.**

SECTION 4 FIRST AID MEASURES

IN CASE OF INHALATION

Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Get medical aid. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

IN CASE OF SKIN CONTACT

Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

IN CASE OF EYE CONTACT

Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

IN CASE OF INGESTION

Do NOT induce vomiting. If victim is conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid.

SIGNS AND SYMPTOMS OF EXPOSURE

To the best of our knowledge, the chemical, physical, and toxicological properties have not been investigated

NOTE TO PHYSICIAN

Treat symptomatically and supportively. 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.

SECTION 5 FIRE FIGHTING MEASURES

Flash Point	>200 °F
Flash Point Method	PMCC

Explosive Limits	***LEL***: N/AV	***UEL***: N/AV
Auto Ignition Point	N/D	

SUITABLE EXTINGUISHING MEDIA Use water spray, dry chemical, carbon dioxide, or alcohol-resistant foam.

FIRE FIGHTING INSTRUCTIONS As in any fire, wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Specific Hazard(s): Emits toxic fumes under fire conditions. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas.

FLAMMABLE PROPERTIES AND HAZARDS Not flammable or combustible.

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.
National Response Center (24-HR Reporting): (800) 424-8802.

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.

CONTAINMENT AND CLEANUP

Avoid runoff into sanitary and storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions. Absorb spill with inert material and place in closed containers for disposal. Ventilate area and wash spill site after material pickup is complete.

SECTION 7 HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING

Avoid inhalation. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

PRECAUTIONS TO BE TAKEN IN STORAGE

Keep container closed when not in use. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Keep away from water. Corrosives area. Do not store in reactive metal containers (i.e. aluminum, tin, zinc and/or their alloys). Protect from freeze and high temperatures (>140 °F). Keep away from sparks, heat and flame.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

CAS #	Ingredients	OSHA TWA	ACGIH TWA	Other Limits
N/A	N/A	N/A	N/A	N/A

ENGINEERING CONTROLS

The level of ventilation necessary will vary depending upon potential exposure conditions. Adequate ventilation should be provided so that exposure limits are not exceeded. If heavy misting is present, local exhaust ventilation should be considered in addition to general mechanical ventilation.

WORK/HYGIENIC/MAINTENANCE PRACTICES

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.

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 None required under normal intended conditions of product use. However, 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.

Hand Protection Wear appropriate protective gloves to prevent skin exposure. 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 rubber/Neoprene.**

Eye Protection Safety glasses are recommended. If splashing is likely, safety goggles or safety glasses with splash shield are recommended. Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin and Body Protection The types of clothing to be considered for this material include: Long-sleeved shirt and pants, at a minimum. If prolonged or repeated contact is likely, chemical-resistant clothing is recommended.

OTHER PROTECTIVE EQUIPMENT Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear Green
Physical State	Liquid
Odor	Light Fragrance
pH	1.5 – 1.7
Melting Point	N/A
Boiling Point	N/D

Specific Gravity (water = 1)	1.11 - 1.13
Vapor Pressure	N/D
Evaporation Rate (water = 1)	N/D
Viscosity	N/D
Volatile Organic Compounds (%)	0.0
Solubility in Water	Complete

SECTION 10 STABILITY / REACTIVITY

Chemical Stability ***Unstable*** [ ] ***Stable*** [X]
Conditions to Avoid Excess heat.
Reactivity / Incompatibility Oxidizing agents, Bases, Reducing agents, nitrates.
Hazardous Decomposition Formed under fire conditions - Carbon oxides, nitrogen oxides (NOx).
Hazardous Reactions ***Will occur*** [ ] ***Will not occur*** [X]

SECTION 11 TOXICOLOGICAL INFORMATION

CARCINOGENICITY

Product is not tested for carcinogenicity. No components of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen, except as identified below;

IARC: Not Listed **ACGIH**: Not Listed **NTP:** Not Listed

PRODUCT TOXICOLOGICAL DATA

Product is not tested for classification under the following categories:

LD50 (Oral), LC50 (Inhalation), Dermal Toxicity (Skin), Skin Corrosion/Irritation, Serious Eye Damage/Irritation, Respiratory/ Skin Sensitization, Germ Cell Mutagenicity, Carcinogenicity, Reproductive Toxicity, STOT-single exposure, STOR-repeated exposure, Aspiration Hazard

INGREDIENT TOXICOLOGICAL DATA

None of the ingredients above 1% concentration (0.1% for carcinogens) trigger the hazard rating or classify under the following categories, unless indicated below:

LD50 (Oral), LC50 (Inhalation), Dermal Toxicity (Skin), Skin Corrosion/Irritation, Serious Eye Damage/Irritation, Respiratory/ Skin Sensitization, Germ Cell Mutagenicity, Carcinogenicity, Reproductive Toxicity, STOT-single exposure, STOR-repeated exposure, Aspiration Hazard

SECTION 12 ECOLOGICAL INFORMATION

General Ecological Information	N/AV.	**Persistence and Degradability**	N/AV
Bioaccumulative Potential	N/AV.	**Mobility in Soil**	N/AV

SECTION 13 DISPOSAL CONSIDERATIONS

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

Contact a licensed professional waste disposal service to dispose of this material. Preferred method of disposal is to dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

Contaminated Packaging Dispose of as unused product.

Empty Containers Clean empty containers of any residue per 40CFR261.7 guidelines and either recycle containers or dispose of in normal trash.

SECTION 14 TRANSPORT INFORMATION

	LAND (US DOT)	MARINE (IMDG)	AIR (IATA)
Proper Shipping Name	Corrosive Liquid, n.o.s. (contains sulfamic acid and citric acid)		
Hazard Class	8		
ID Number	UN 1760		
Packaging Group	II		

Additional Information

DOT Quantity Limitation: 1 L

DOT Label for Limited Quantities: LQ diamond per 49CFR172.315

SECTION 15 REGULATORY INFORMATION

EPA SARA (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986) LISTS

[302 (EHS) TPQ, 304 RQ, 313 TRI]

None of the ingredients above 1% concentration (0.1% for carcinogens) are identified in the lists.

SARA TITLE III SECTION 311/312 CATEGORIZATION (40 CFR 370)	Yes	No
Acute (immediate) Health Hazard	X	
Chronic (delayed) Health Hazard		X
Fire Hazard		X
Sudden Release of Pressure Hazard		X
Reactive Hazard		X

STATE AND OTHER US EPA REGULATIONS

California Prop. 65 N/AP

N/D = Not Determined N/A = Not Applicable N/AV = Not Available

WHMIS CLASSIFICATION (1988) D2B (Stylized T) and E (Corrosive Material)

This product has been classified under WHMIS 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
CAA HAP, ODC	No
CWA NPDES	No
CEPA (DSL/NDSL)	Yes
KECI	N/D

AICS	N/D
IECSC	N/D
EINECS	N/D
ENCS	N/D
PICCS	N/D

SECTION 16 OTHER INFORMATION

ADDITIONAL GHS PHRASES

GHS phrases provided below are in addition to the phrases available in Section 2. GHS phrases are identified in accordance with GHS regulations and are triggered for each hazard category.

Immediately call a POISON CENTER/doctor/....

Specific treatment see ... on this label.

NFPA RATING Health (Blue): 2 Flammability (Red): 0 Reactivity (Yellow): 0 Specific Hazard(s) (White): COR

HMIS RATING Health (Blue): 2 Flammability (Red): 0 Reactivity (Yellow): 0 Personal Protective Equipment: B or C

THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS

Conversion from EU format MSDS to GHS format SDS; Ingredient/concentration

USER RESPONSIBILITY It is the user's responsibility to determine the suitability and adopt precautions as may be advisable for the protection of property and persons against any hazards that may be involved in the handling and use of this product.

PREPARED BY

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

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