SAFETY DATA SHEET

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SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

PRODUCT IDENTIFIER

Product Name	DCT Auto-Dish Wash Liquid
Product Use	Concentrate
Product ID Number	DCT130340
PGP Number	7-92

RECOMMENDED USE AND RESTRICTIONS ON USE

Detergent for automatic dishwashers

Product Dilution Information –0.2 to 0.8% (Safety aspect related to diluted product use is provided in following Sections as applicable)

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
Serious Eye Damage/Eye Irritation	1
Skin Corrosion/Irritation	1A-1C
Acute Toxicity: Oral	5

GHS LABEL ELEMENTS

Pictogram

GHS Signal Word
DANGER

GHS Hazard Phrases

Harmful if swallowed.
Causes severe skin burns and eye damage.
Causes serious eye damage.

Diluted Product Use Information
Hazard class - not classified
No signal word
No GHS phrases apply

GHS Precaution Phrases

Do not breathe dust/fume/gas/mist/vapors/spray.
Wash hands thoroughly after handling.
Do not eat, drink or smoke when using this product.
Wear protective gloves/protective clothing/eye protection/face protection.

GHS Response Phrases

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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: Prolonged or repeated skin contact may cause dermatitis. Effects may be delayed. Repeated contact may cause corneal damage.

Inhalation May cause respiratory tract irritation. May be harmful if inhaled.
Skin Contact Causes severe burns with delayed tissue destruction.
Eye Contact Causes eye burns.
Ingestion May cause severe and permanent damage to the digestive tract.

Diluted Product Use Information
May cause mild irritation to eyes & skin

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

CAS Number	Ingredients*	Percentage Range
1310-73-2	Sodium hydroxide, 50%	1 – 10
6834-92-0	Sodium metasilicate	1 – 5
77-92-9	Citric acid	1 – 10

***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. Get medical aid if irritation develops or persists. Wash clothing before reuse.

Diluted Product Use Information
Upon skin or eye contact, flush with water for a few minutes. Get medical attention if symptoms occur.

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

The chemical, physical, and toxicological properties of the product have not been investigated to determine signs and symptoms of exposure.

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	N/A
Flash Point Method	N/A

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

SUITABLE EXTINGUISHING MEDIA Use water spray, dry chemical, carbon dioxide, or chemical 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 No data available

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 personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Vapors can accumulate in low areas. For industrial use only. Keep out of reach of children.

CONTAINMENT AND CLEANUP

Avoid runoff into 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

Wash thoroughly after handling. Do not allow water to get into the container because of violent reaction. Do not breathe dust, mist, or vapor. Do not get in eyes, on skin, or on clothing. Keep container tightly closed. Do not ingest or inhale. Do not allow large quantities in contact with water. Use with adequate ventilation. Unvented containers may develop pressure – use with caution.

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.

Diluted Product Use Information
Wash thoroughly after handling
Keep out of reach of children.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

CAS #	Ingredients	OSHA TWA	ACGIH TWA	Other Limits
1310-73-2	Sodium hydroxide	PEL: 2 mg/m3	CEIL: 2 mg/m3	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.

Diluted Product Use Information

If splashing is likely, safety goggles or safety glasses with splash shield are recommended. No other protective equipment is needed under normal use conditions.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear Red
Physical State	Liquid
Odor	Mild
Ph	12.3-12.8
Melting Point	N/A
Boiling Point	N/A

Specific Gravity (water = 1)	1.20-1.22
Vapor Pressure	N/D
Viscosity	N/D
Evaporation Rate (water = 1)	N/D
Volatile Organic Compounds (%)	N/A
Solubility in Water	Completely

SECTION 10 STABILITY / REACTIVITY

Chemical Stability ***Unstable*** [ ] ***Stable*** [X]

Conditions to Avoid Heat, flames and sparks.

Reactivity / Incompatibility Strong oxidizing agents, Strong acids.

Hazardous Decomposition Incomplete combustion or thermal decomposition may be expected to generate such materials as: particulate matter and unburned, hydrocarbons; oxides of carbon; water vapor; and other unidentified organic and inorganic compounds.

Hazardous Reactions ***Will occur*** [ ] ***Will not occur*** [X]

SECTION 11 TOXICOLOGICAL INFORMATION

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:

IARC: 5064-31-3; Glycine, N,N-Bis(carboxymethyl)-, trisodium salt; Class-2B; (0.11%) **ACGIH**: Not Listed
NTP: 5064-31-3; Glycine, N,N-Bis(carboxymethyl)-, trisodium salt: Class-Possible; (0.11%)

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

No ingredients present at levels greater than or equal to 0.1% trigger the hazard rating or classify under the following categories, unless indicated below:
LC50 (Inhalation), Dermal Toxicity (Skin), Serious Eye Damage/Irritation, Respiratory/ Skin Sensitization, Germ Cell Mutagenicity, Carcinogenicity, Reproductive Toxicity, STOT-single exposure, STOR-repeated exposure, Aspiration Hazard

LD50 (Oral): CAS# 67-56-1: Monkey, 7.000 gm/kg; CAS# 68439-46-3: Rat, 1378. MG/KG.

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 1-10% sodium hydroxide and other proprietary alkaline ingredients)		
Hazard Class	8		
ID Number	UN1760		
Packaging Group	III		

Additional Information

DOT Limited Quantities: 5 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 CERCLA RQ, 304 EHS RQ, 313 (TRI)**]**
None of the ingredients above 1% concentration and 0.1% for carcinogens are identified in the lists, except:
1310-73-2; Sodium hydroxide – S304 (RQ): 1000 LB

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/A

WHMIS CLASSIFICATION (1988) 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	**AICS**	N/D
CAA HAP, ODC	No	**IECSC**	N/D
CWA NPDES	No	**EINECS**	N/D
CEPA (DSL/NDSL)	Yes	**ENCS**	N/D
KECI	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.

IF exposed or concerned: Get medical attention/advice.
Immediately call a POISON CENTER or doctor/physician.

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

Diluted Product Use Information

NFPA RATING	Health (Blue): 1	Flammability (Red): 0	Reactivity (Yellow): 0	Specific Hazard(s) (White): None
HMIS RATING	Health (Blue): 1	Flammability (Red): 0	Reactivity (Yellow): 0	Personal Protective Equipment: A

THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS

EU format MSDS to GHS format SDS; Ingredient/percentage

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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