NALCO Water
An Ecolab Company

SAFETY DATA SHEET

3D TRASAR™ 3DT465

Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name	:	3D TRASAR™ 3DT465
Other means of identification	:	Not applicable.
Recommended use	:	CORROSION/SCALE INHIBITOR
Restrictions on use	:	Refer to available product literature or ask your local Sales Representative for restrictions on use and dose limits.
Company	:	Nalco Company 1601 W. Diehl Road Naperville, Illinois 60563-1198 USA TEL: (630)305-1000
Emergency telephone number	:	(800) 424-9300 (24 Hours) CHEMTREC
Issuing date	:	06/11/2019

Section: 2. HAZARDS IDENTIFICATION

GHS Classification

Corrosive to metals : Category 1

GHS Label element

Hazard pictograms :



Signal Word : Warning

Hazard Statements : May be corrosive to metals.

Precautionary Statements :

Prevention:
Keep only in original container.
Response:
Absorb spillage to prevent material damage.
Storage:
Store in corrosive resistant stainless steel container with a resistant inner liner.
Protect product from freezing.

Other hazards : None known.

Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No.	Concentration: (%)
2-Phosphono-1,2,4-Butanetricarboxylic Acid	37971-36-1	5 - 10
Sodium HEDP	29329-71-3	1 - 5

Section: 4. FIRST AID MEASURES

In case of eye contact	:	Rinse with plenty of water. Get medical attention if symptoms occur.
In case of skin contact	:	Wash off with soap and plenty of water. Get medical attention if symptoms occur.
If swallowed	:	Rinse mouth. Get medical attention if symptoms occur.
If inhaled	:	Get medical attention if symptoms occur.
Protection of first-aiders	:	In event of emergency assess the danger before taking action. Do not put yourself at risk of injury. If in doubt, contact emergency responders. Use personal protective equipment as required.
Notes to physician	:	Treat symptomatically.
Most important symptoms and effects, both acute and delayed	:	See Section 11 for more detailed information on health effects and symptoms.

Section: 5. FIREFIGHTING MEASURES

Suitable extinguishing media	:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	:	None known.
Specific hazards during firefighting	:	Not flammable or combustible.
Hazardous combustion products	:	Decomposition products may include the following materials: Carbon oxides nitrogen oxides (NOx) Sulphur oxides Oxides of phosphorus
Special protective equipment for firefighters	:	Use personal protective equipment.
Specific extinguishing methods	:	Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.

Section: 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Refer to protective measures listed in sections 7 and 8.
Environmental precautions	:	Do not allow contact with soil, surface or ground water.
Methods and materials for containment and cleaning up	:	Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). For large spills, dike spilled material or otherwise

contain material to ensure runoff does not reach a waterway. Flush away traces with water.

Section: 7. HANDLING AND STORAGE

Advice on safe handling	:	Wash hands thoroughly after handling. Use only with adequate ventilation. Protect product from freezing.
Conditions for safe storage	:	Keep out of reach of children. Keep container tightly closed. Store in suitable labelled containers.
Suitable material	:	Keep in properly labelled containers.
Unsuitable material	:	not determined

Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Form of exposure	Permissible concentration	Basis
2-Phosphono-1,2,4-Butanetricarboxylic Acid	37971-36-1	TWA (Aerosol.)	10 mg/m3	AIHA WEEL

Engineering measures : Effective exhaust ventilation system. Maintain air concentrations below occupational exposure standards.

Personal protective equipment

Eye protection	:	Safety glasses
Hand protection	:	Wear protective gloves. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.
Skin protection	:	Wear suitable protective clothing.
Respiratory protection	:	No personal respiratory protective equipment normally required.
Hygiene measures	:	Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling.

Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	liquid
Colour	:	yellow
Odour	:	None
Flash point	:	Not applicable.
pH	:	2.2,(100 %)
Odour Threshold	:	no data available

Melting point/freezing point	:	Melting point/freezing point: -2.3 °C
Initial boiling point and boiling range	:	96.7 °C
Evaporation rate	:	no data available
Flammability (solid, gas)	:	no data available
Upper explosion limit	:	no data available
Lower explosion limit	:	no data available
Vapour pressure	:	no data available
Relative vapour density	:	no data available
Relative density	:	1.106, (25.0 °C),
Density	:	9.22 lb/gal
Water solubility	:	Complete
Solubility in other solvents	:	no data available
Partition coefficient: n-octanol/water	:	no data available
Auto-ignition temperature	:	no data available
Thermal decomposition	:	no data available
Viscosity, dynamic	:	no data available
Viscosity, kinematic	:	3.96 mm2/s (24 °C)
Molecular weight	:	no data available
VOC	:	no data available

Section: 10. STABILITY AND REACTIVITY

Reactivity	:	No dangerous reaction known under conditions of normal use.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	No dangerous reaction known under conditions of normal use.
Conditions to avoid	:	None known.
Incompatible materials	:	None known.
Hazardous decomposition products	:	Decomposition products may include the following materials: Carbon oxides nitrogen oxides (NOx) Sulphur oxides Oxides of phosphorus

Section: 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure	:	Inhalation, Eye contact, Skin contact

Potential Health Effects

Eyes	:	Health injuries are not known or expected under normal use.
Skin	:	Health injuries are not known or expected under normal use.
Ingestion	:	Health injuries are not known or expected under normal use.
Inhalation	:	Health injuries are not known or expected under normal use.
Chronic Exposure	:	Health injuries are not known or expected under normal use.

Experience with human exposure

Eye contact	:	No symptoms known or expected.
Skin contact	:	No symptoms known or expected.
Ingestion	:	No symptoms known or expected.
Inhalation	:	No symptoms known or expected.

Toxicity

Product

Acute oral toxicity	:	Acute toxicity estimate: > 5,000 mg/kg
Acute inhalation toxicity	:	no data available
Acute dermal toxicity	:	no data available
Skin corrosion/irritation	:	no data available
Serious eye damage/eye irritation	:	Species: rabbit Result: No eye irritation Method: OECD Test Guideline 405 GLP: yes Test substance: Product
Respiratory or skin sensitization	:	no data available
Carcinogenicity	:	no data available
Reproductive effects	:	no data available
Germ cell mutagenicity	:	no data available
Teratogenicity	:	no data available
STOT - single exposure	:	no data available
STOT - repeated exposure	:	no data available
Aspiration toxicity	:	no data available

Components

Acute dermal toxicity	:	Sodium HEDP LD50 rabbit: > 7,940 mg/kg

Section: 12. ECOLOGICAL INFORMATION

Ecotoxicity

Environmental Effects : This product has no known ecotoxicological effects.

Product

Toxicity to fish : LC50 Fathead Minnow: 5,018 mg/l
Exposure time: 96 hrs
Test substance: Product

NOEC Fathead Minnow: 3,600 mg/l
Exposure time: 96 hrs
Test substance: Product

LC50 Rainbow Trout: 2,324 mg/l
Exposure time: 96 hrs
Test substance: Product

NOEC Rainbow Trout: 1,800 mg/l
Exposure time: 96 hrs
Test substance: Product

Toxicity to daphnia and other aquatic invertebrates : EC50 Ceriodaphnia dubia: 1,544 mg/l
Exposure time: 48 hrs
Test substance: Product

NOEC Ceriodaphnia dubia: 1,080 mg/l
Exposure time: 48 hrs
Test substance: Product

Components

Toxicity to algae : 2-Phosphono-1,2,4-Butanetricarboxylic Acid
EC50 Desmodesmus subspicatus (green algae): 140 mg/l
Exposure time: 72 h

Sodium HEDP
NOEC : 13 mg/l
Exposure time: 14 d

Components

Toxicity to fish (Chronic toxicity) : 2-Phosphono-1,2,4-Butanetricarboxylic Acid
NOEC: > 1,042 mg/l
Exposure time: 14 d
Species: Danio rerio (zebra fish)

Sodium HEDP
LC50: 180 mg/l
Exposure time: 14 d

Components

Toxicity to daphnia and other : 2-Phosphono-1,2,4-Butanetricarboxylic Acid

aquatic invertebrates (Chronic toxicity)	NOEC: 104 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea) Sodium HEDP NOEC: 6.75 mg/l Exposure time: 28 d

Persistence and degradability

Total Organic Carbon (TOC) : 8,500 mg/l

Chemical Oxygen Demand (COD): 160,000 mg/l

Biochemical Oxygen Demand (BOD):

Incubation Period	Value	Test Descriptor
5 d	< 1,000 mg/l	

Mobility

no data available

Bioaccumulative potential

no data available

Other information

no data available

Section: 13. DISPOSAL CONSIDERATIONS

Disposal methods	:	Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in an approved waste disposal facility.
Disposal considerations	:	Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

Section: 14. TRANSPORT INFORMATION

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

Land transport (DOT)

Proper shipping name	:	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.
Technical name(s)	:	2-Phosphono-1,2,4-Butanetricarboxylic Acid,
UN/ID No.	:	UN 3265
Transport hazard class(es)	:	8
Packing group	:	III

Air transport (IATA)

Proper shipping name	:	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.
Technical name(s)	:	2-Phosphono-1,2,4-Butanetricarboxylic Acid,
UN/ID No.	:	UN 3265
Transport hazard class(es)	:	8
Packing group	:	III

Sea transport (IMDG/IMO)

Proper shipping name	:	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.
Technical name(s)	:	2-Phosphono-1,2,4-Butanetricarboxylic Acid,
UN/ID No.	:	UN 3265
Transport hazard class(es)	:	8
Packing group	:	III

Section: 15. REGULATORY INFORMATION

TSCA list : Not relevant

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

This product does not contain a RQ substance, or this product contains a substance with a RQ, however the calculated RQ exceeds the reasonably attainable upper limit.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : No SARA Hazards

SARA 302 : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

California Prop. 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

INTERNATIONAL CHEMICAL CONTROL LAWS :

United States TSCA Inventory

The substances in this preparation are included on or exempted from the TSCA 8(b) Inventory (40 CFR 710)

Canadian Domestic Substances List (DSL)

The substance(s) in this preparation are included in or exempted from the Domestic Substance List (DSL).

China Inventory of Existing Chemical Substances

All substances in this product comply with the Provisions on the Environmental Administration of New Chemical Substances and are listed on or exempt from the Inventory of Existing Chemical Substances China (IECSC).

Korea. Korean Existing Chemicals Inventory (KECI)
All substances in this product comply with the Chemical Control Act (CCA) and are listed on the Existing Chemicals List (ECL)

Taiwan Chemical Substance Inventory
All substances in this product comply with the Taiwan Existing Chemical Substances Inventory (ECSI).

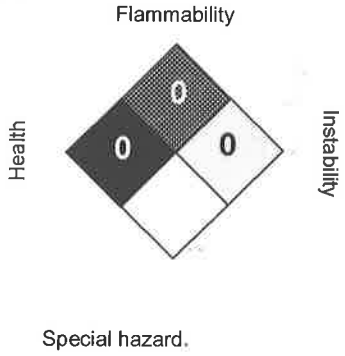
Japan. ENCS - Existing and New Chemical Substances Inventory
All substances in this product comply with the Law Regulating the Manufacture and Importation Of Chemical Substances and are listed on the Existing and New Chemical Substances list (ENCS).

Australia. Industrial Chemical (Notification and Assessment) Act
All substances in this product comply with the National Industrial Chemicals Notification & Assessment Scheme (NICNAS).

New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand
All substances in this product comply with the Hazardous Substances and New Organisms (HSNO) Act 1996,and are listed on or are exempt from the New Zealand Inventory of Chemicals.

Section: 16. OTHER INFORMATION

NFPA:



HMIS III:

HEALTH	0
FLAMMABILITY	0
PHYSICAL HAZARD	0

0 = not significant, 1 =Slight,
2 = Moderate, 3 = High
4 = Extreme, * = Chronic

Revision Date	:	06/11/2019
Version Number	:	1.11
Prepared By	:	Regulatory Affairs

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.
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