SAFETY DATA SHEET

460-S0234 SOLN TDS-1

Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name	:	460-S0234 SOLN TDS-1
Other means of identification	:	Not applicable.
Recommended use	:	INDICATOR LIQUID
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	:	01/23/2015

Section: 2. HAZARDS IDENTIFICATION

GHS Classification

Flammable liquids	:	Category 3
Eye irritation	:	Category 2A
Specific target organ toxicity - single exposure	:	Category 2 (Eyes)

GHS Label element

Hazard pictograms :

Signal Word : Warning

Hazard Statements : Flammable liquid and vapour.
Causes serious eye irritation.
May cause damage to organs (Eyes).

Precautionary Statements : **Prevention:**
Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ ventilating/ lighting/ equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe dust/fume/gas/mist/vapours/spray. Wash skin thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/ eye protection/ face protection. Do not mix with bleach or other chlorinated products – will cause chlorine gas.
Response:
IF ON SKIN (or hair): Remove/ Take off immediately all

contaminated clothing. Rinse skin with water/ shower. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed or if you feel unwell: Call a POISON CENTER or doctor/ physician. If eye irritation persists: Get medical advice/ attention. In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
Storage:
Store in a well-ventilated place. Keep cool. Store locked up.
Disposal:
Dispose of contents/ container to an approved waste disposal plant.

Other hazards : None known.

Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No.	Concentration: (%)
Ethanol	64-17-5	30 - 60
Citric Acid	77-92-9	1 - 5
Methanol	67-56-1	1 - 5

Section: 4. FIRST AID MEASURES

In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention.

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 : Fire Hazard
Keep away from heat and sources of ignition.
Flash back possible over considerable distance.
Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

		Empty product containers may contain product residue. Do not pressurize, cut, heat, weld, or expose containers to flame or other sources of ignition.
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	:	Use water spray to cool unopened containers. 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	:	Ensure adequate ventilation. Remove all sources of ignition. Ensure clean-up is conducted by trained personnel only. 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	:	Eliminate all ignition sources if safe to do so. 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	:	Avoid contact with skin and eyes. Open drum carefully as content may be under pressure. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Keep away from fire, sparks and heated surfaces. Wash hands thoroughly after handling. Use only with adequate ventilation. Do not mix with bleach or other chlorinated products – will cause chlorine gas.
Conditions for safe storage	:	Keep away from heat and sources of ignition. Keep in a cool, well-ventilated place. Keep away from oxidizing agents. Keep out of reach of children. Keep container tightly closed. Store in suitable labeled containers.
Suitable material	:	The following compatibility data is suggested based on similar product data and/or industry experience: Compatibility with Plastic Materials can vary; we therefore recommend that compatibility is tested prior to use.
Unsuitable material	:	not determined

Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Form of exposure	Permissible concentration	Basis
Ethanol	64-17-5	TWA	1,000 ppm 1,900 mg/m3	NIOSH REL
		TWA	1,000 ppm 1,900 mg/m3	OSHA Z1
Methanol	67-56-1	TWA	200 ppm	ACGIH
		STEL	250 ppm	ACGIH
		TWA	200 ppm 260 mg/m3	NIOSH REL
		STEL	250 ppm 325 mg/m3	NIOSH REL
		TWA	200 ppm 260 mg/m3	OSHA Z1

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

Personal protective equipment

Eye protection : Safety glasses with side-shields

Hand protection : Wear protective gloves.
Standard glove type.
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 : Colorless

Odour : Alcoholic

Flash point : 24 °C
Method: ASTM D 56, Tag closed cup

pH : 5 - 7, 100 %

Odour Threshold : no data available

Melting point/freezing point : no data available

Initial boiling point and boiling range : no data available

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	:	no data available
Density	:	no data available
Water solubility	:	completely soluble
Solubility in other solvents	:	no data available
Partition coefficient: n-octanol/water	:	no data available
Auto-ignition temperature	:	no data available
Thermal decomposition temperature	:	no data available
Viscosity, dynamic	:	no data available
Viscosity, kinematic	:	no data available
VOC	:	39.46 %

Section: 10. STABILITY AND REACTIVITY

Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	Do not mix with bleach or other chlorinated products – will cause chlorine gas.
Conditions to avoid	:	Extremes of temperature Heat and sources of ignition including static discharges.
Incompatible materials	:	Contact with strong oxidizers (e.g. chlorine, peroxides, chromates, nitric acid, perchlorate, concentrated oxygen, permanganate) may generate heat, fires, explosions and/or toxic vapors. Contact with strong alkalies (e.g. ammonia and its solutions, carbonates, sodium hydroxide (caustic), potassium hydroxide, calcium hydroxide (lime), cyanide, sulfide, hypochlorites, chlorites) may generate heat, splattering or boiling and toxic vapors.
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	:	Causes serious eye irritation.
Skin	:	May cause numbness, weakness, shooting pain in stomach and/or extremities, and blindness.

Ingestion	:	Health injuries are not known or expected under normal use.
Inhalation	:	May cause numbness, weakness, shooting pain in stomach and/or extremities, and blindness.
Chronic Exposure	:	May cause damage to organs.

Experience with human exposure

Eye contact	:	Redness, Pain, Irritation

Toxicity

Product

Acute oral toxicity	:	rat: 7,060 mg/kg Acute toxicity estimate: 2,941 mg/kg
Acute inhalation toxicity	:	Acute toxicity estimate : > 40 mg/l Exposure time: 4 h
Acute dermal toxicity	:	Acute toxicity estimate : > 5,000 mg/kg
Skin corrosion/irritation	:	no data available
Serious eye damage/eye irritation	:	no data available
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

Section: 12. ECOLOGICAL INFORMATION

Ecotoxicity

Environmental Effects	:	This product has no known ecotoxicological effects.

Components

Toxicity to fish	:	Citric Acid LC50 Fish: > 100 mg/l Exposure time: 96 h

Methanol
LC50 : 15,400 mg/l
Exposure time: 96 h

Components

Toxicity to daphnia and other aquatic invertebrates : Methanol
EC50 : > 10,000 mg/l
Exposure time: 48 h

Components

Toxicity to algae : Methanol
EC50 : 22,000 mg/l
Exposure time: 72 h

Components

Toxicity to bacteria : Methanol
> 1,000 mg/l

Components

Toxicity to fish (Chronic toxicity) : Methanol
NOEC: 7,900 mg/l
Exposure time: 8.3 d

Persistence and degradability

The organic portion of this preparation is expected to be readily biodegradable.

Mobility

The environmental fate was estimated using a level III fugacity model embedded in the EPI (estimation program interface) Suite TM, provided by the US EPA. The model assumes a steady state condition between the total input and output. The level III model does not require equilibrium between the defined media. The information provided is intended to give the user a general estimate of the environmental fate of this product under the defined conditions of the models.
If released into the environment this material is expected to distribute to the air, water and soil/sediment in the approximate respective percentages;

Air : <5%
Water : 30 - 50%
Soil : 30 - 50%

The portion in water is expected to be soluble or dispersible.

Bioaccumulative potential

This preparation or material is not expected to bioaccumulate.

Other information

no data available

Section: 13. DISPOSAL CONSIDERATIONS

If this product becomes a waste, it could meet the criteria of a hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Before disposal, it should be determined if the waste meets the criteria of a hazardous waste.

Hazardous Waste:	:	D001
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	:	FLAMMABLE LIQUID, N.O.S.
Technical name(s)	:	Ethanol, Methanol
UN/ID No.	:	UN 1993
Transport hazard class(es)	:	3
Packing group	:	III
Reportable Quantity (per package)	:	147,058 lbs
RQ Component	:	METHANOL

Air transport (IATA)

Proper shipping name	:	FLAMMABLE LIQUID, N.O.S.
Technical name(s)	:	Ethanol, Methanol
UN/ID No.	:	UN 1993
Transport hazard class(es)	:	3
Packing group	:	III
Reportable Quantity (per package)	:	147,058 lbs
RQ Component	:	METHANOL

Sea transport (IMDG/IMO)

Proper shipping name	:	FLAMMABLE LIQUID, N.O.S.
Technical name(s)	:	Ethanol, Methanol
UN/ID No.	:	UN 1993
Transport hazard class(es)	:	3
Packing group	:	III

Section: 15. REGULATORY INFORMATION

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

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Methanol	67-56-1	5000	147059

SARA 304 Extremely Hazardous Substances Reportable Quantity
This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : Fire Hazard
Acute Health Hazard

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

SARA 313 : The following components are subject to reporting levels established by SARA Title III, Section 313:
Methanol 67-56-1 1 - 5 %

California Prop 65
WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Methanol 67-56-1

INTERNATIONAL CHEMICAL CONTROL LAWS :

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

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA)
The substance(s) in this preparation are included in or exempted from the Domestic Substance List (DSL).

AUSTRALIA
All substances in this product comply with the National Industrial Chemicals Notification & Assessment Scheme (NICNAS).

CHINA
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).

EUROPE
The substances in this preparation have been reviewed for compliance with the EINECS or ELINCS inventories.

JAPAN
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).

KOREA
All substances in this product comply with the Toxic Chemical Control Law (TCCL) and are listed on the Existing Chemicals List (ECL)

PHILIPPINES
All substances in this product comply with the Republic Act 6969 (RA 6969) and are listed on the Philippines Inventory of Chemicals & Chemical Substances (PICCS).

Section: 16. OTHER INFORMATION

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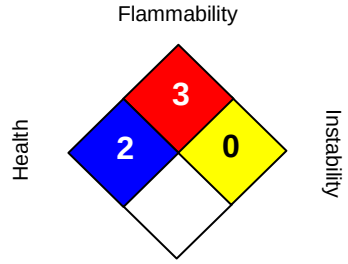
NFPA:



Special hazard.

HMIS III:

HEALTH	2
FLAMMABILITY	3
PHYSICAL HAZARD	0

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

Revision Date	:	01/23/2015
Version Number	:	1.0
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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