Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : NALCO® 60620

Other means of identification : Not applicable.

Recommended use : Proprietary Halogen Stabilizer

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 : 10/20/2016

Section: 2. HAZARDS IDENTIFICATION

GHS Classification
Acute toxicity (Oral) : Category 4
Acute toxicity (Dermal) : Category 4

GHS Label element
Hazard pictograms : !

Signal Word : Warning

Hazard Statements : Harmful if swallowed or in contact with skin

Precautionary Statements : Prevention:
Wash skin thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/ protective clothing.

Response:
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth. IF ON SKIN: Wash with plenty of soap and water. Call a POISON CENTER or doctor/physician if you feel unwell.
Wash contaminated clothing before reuse.

Disposal:
Dispose of contents/ container to an approved waste disposal plant.

Other hazards : None known.

Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS
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 immediately with plenty of water for at least 15 minutes. Use a mild soap if available. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention if irritation develops and persists.

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: 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: 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: Do not ingest. Wash hands thoroughly after handling. Use only with adequate ventilation.


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
This product does not contain any substance that has an established exposure limit.

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

Personal protective equipment

Eye protection: Safety glasses

Hand protection: Wear the following personal protective equipment: 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: Colourless
**SAFETY DATA SHEET**

**NALCO® 60620**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Odour</td>
<td>ammoniacal</td>
</tr>
<tr>
<td>Flash point</td>
<td>&gt; 93.3 °C</td>
</tr>
<tr>
<td>pH</td>
<td>7.8, 100 %</td>
</tr>
<tr>
<td>Odour Threshold</td>
<td>no data available</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>no data available</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>no data available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>no data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>no data available</td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>no data available</td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>no data available</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>no data available</td>
</tr>
<tr>
<td>Relative vapour density</td>
<td>no data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>1.1, (22.8 °C),</td>
</tr>
<tr>
<td>Density</td>
<td>1.09 g/cm3, 9.1 lb/gal</td>
</tr>
<tr>
<td>Water solubility</td>
<td>completely soluble</td>
</tr>
<tr>
<td>Solubility in other solvents</td>
<td>no data available</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>no data available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>no data available</td>
</tr>
<tr>
<td>Thermal decomposition temperature</td>
<td>no data available</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>no data available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>no data available</td>
</tr>
<tr>
<td>Molecular weight</td>
<td>no data available</td>
</tr>
<tr>
<td>VOC</td>
<td>0 %, EPA Method 24</td>
</tr>
</tbody>
</table>

**Section: 10. STABILITY AND REACTIVITY**

- **Chemical stability**: Stable under normal conditions.
- **Possibility of hazardous reactions**: No dangerous reaction known under conditions of normal use.
- **Conditions to avoid**: Extremes of temperature
- **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.
- **Hazardous decomposition products**: Decomposition products may include the following materials: Carbon oxides
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: Harmful in contact with skin.

Ingestion: Harmful if swallowed.

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 information available.

Skin contact: No information available.

Ingestion: No information available.

Inhalation: No symptoms known or expected.

Toxicity

Product

Acute oral toxicity: no data available
Acute inhalation toxicity: no data available
Acute dermal toxicity: no data available
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
SAFETY DATA SHEET
NALCO® 60620

Aspiration toxicity: no data available

Components
Acute oral toxicity: Ammonium Sulfate
LD50 rat: 3,125 mg/kg

Section: 12. ECOLOGICAL INFORMATION

Ecotoxicity
Environmental Effects: This product has no known ecotoxicological effects.

Product

Toxicity to fish:
- LC50 Pimephales promelas (fathead minnow): 1,460 mg/l
  Exposure time: 96 hrs
  Test substance: Product
- LC50 Lepomis macrochirus (Bluegill sunfish): 338 mg/l
  Exposure time: 96 hrs
  Test substance: Product
  Test Type: Static
- LC50 Oncorhynchus mykiss (rainbow trout): 722 mg/l
  Exposure time: 96 hrs
  Test substance: Product
  Test Type: Static
- NOEC Pimephales promelas (fathead minnow): 625 mg/l
  Exposure time: 96 hrs
  Test substance: Product
- NOEC Lepomis macrochirus (Bluegill sunfish): 62.5 mg/l
  Exposure time: 96 hrs
  Test substance: Product
  Test Type: Static
- NOEC Oncorhynchus mykiss (rainbow trout): 250 mg/l
  Exposure time: 96 hrs
  Test substance: Product
  Test Type: Static

Toxicity to daphnia and other aquatic invertebrates:
- LC50 Daphnia magna (Water flea): 4,044 mg/l
  Exposure time: 48 hrs
  Test substance: Product
- NOEC Daphnia magna (Water flea): 1,250 mg/l
  Exposure time: 48 hrs
  Test substance: Product
- LC50 Ceriodaphnia dubia: 1,137 mg/l
  Exposure time: 48 hrs
  Test substance: Product
- NOEC Ceriodaphnia dubia: 648 mg/l
Exposure time: 48 hrs
Test substance: Product

Toxicity to fish (Chronic toxicity):
EC25 / IC25: 418 mg/l
Exposure time: 7 Days
Species: Fathead Minnow
Test substance: Product

LOEC: 500 mg/l
Exposure time: 7 Days
Species: Fathead Minnow
Test substance: Product

NOEC: 250 mg/l
Exposure time: 7 Days
Species: Fathead Minnow
Test substance: Product

Exposure time: 7 Days
Species: Fathead Minnow
Test substance: Product

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity):
LOEC: 1,000 mg/l
Exposure time: 7 Days
Species: Ceriodaphnia dubia
Test substance: Product
Test Type: 3 Brood

EC25 / IC25: 572 mg/l
Exposure time: 7 Days
Species: Ceriodaphnia dubia
Test substance: Product
Test Type: 3 Brood

NOEC: 500 mg/l
Exposure time: 7 Days
Species: Ceriodaphnia dubia
Test substance: Product
Test Type: 3 Brood

Toxicity to terrestrial organisms:
LD50 Bobwhite Quail: > 2,003 mg/kg
Exposure time: 14 Days
Test substance: Product

Persistence and degradability

Greater than 95% of this product consists of inorganic substances for which a biodegradation value is not applicable.

Chemical Oxygen Demand (COD): 400 mg/l

Biochemical Oxygen Demand (BOD):

<table>
<thead>
<tr>
<th>Incubation Period</th>
<th>Value</th>
<th>Test Descriptor</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 d</td>
<td>&lt; 30 mg/l</td>
<td>Product</td>
</tr>
</tbody>
</table>

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 : 50 - 70%

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 is not a hazardous waste as defined by the Resource Conservation and Recovery
Act (RCRA) 40 CFR 261, since it does not have the characteristics of Subpart C, nor is it listed under Subpart D.

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 : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

Air transport (IATA)
Proper shipping name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

Sea transport (IMDG/IMO)
Proper shipping name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

Section: 15. REGULATORY INFORMATION

EPA Reg. No. : 1706-240

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

CERCLA Reportable Quantity
This material does not contain any components with a CERCLA RQ.

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

SARA 311/312 Hazards: 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:
- Ammonium Sulfate 7783-20-2 20 %

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:

TOXIC SUBSTANCES CONTROL ACT (TSCA)
This product is exempted under TSCA and regulated under FIFRA. The inerts are on the Inventory List.

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA)
Substances regulated under the Pest Control Products Act are exempt from CEPA New Substance Notification requirements.

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).

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 Chemical Control Act (CCA) and are listed on the Existing Chemicals List (ECL)

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.

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
SAFETY DATA SHEET
NALCO® 60620

NFPA:

Flammability
1

Health
1

Instability
0

HMIS III:

HEALTH
1

FLAMMABILITY
1

PHYSICAL HAZARD
0

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

Revision Date : 10/20/2016
Version Number : 1.5
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. For additional copies of an SDS visit www.nalco.com and request access.