

SAFETY DATA SHEET (SDS)

Agro-K Corporation

I. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Top-Set D.L.
 Common Name: Liquid fertilizer
 Identified Uses: Intended for agriculture. Not for human consumption.

Supplier: AGRO-K CORPORATION
 8030 MAIN STREET NE
 MINNEAPOLIS, MN 55432
 Telephone: (763) 780-4116 / (800) 328-2418
 FAX: (763) 780-4316

CHEMTREC
 Emergency Telephone: (800) 424-9300

II. HAZARDS IDENTIFICATION

Classification:
 Skin Irritant 2 H315
 Eye Irritant 2A H319
 STOT RE 2 H335
 Inhalation Acute 4 H332
 Reproductive Toxicity 2 H361



Hazard pictogram:

Signal word: Warning
 Hazard statements: H315 – Causes skin irritation
 H319 – Causes serious eye irritation
 H332 – Harmful if inhaled
 H361 – Suspected of damaging fertility or the unborn child through ingestion
 H335 – May cause damage to kidneys, liver, or central nervous system through prolonged or repeated inhalation or ingestion
 Precautionary statements: P261 – Avoid breathing mix and spray
 P264 – Wash thoroughly after handling
 P271 – Use only outdoors or in a well-ventilated area
 P273 – Avoid release to aquatic environment
 P280 – Wear protective gloves/clothing/eyewear/face
 P281 – Use personal protective equipment as required
 P201 – Read and follow label instructions before use
 P202 – Do not handle until all safety precautions have been read and understood.
 P302+P352 – If on skin: Wash with plenty of soap and water
 P304+P340 – If inhaled: Remove person to fresh air and keep comfortable for breathing
 P308+P313 – If exposed or concerned: Get medical advice/attention
 P305+P351+P338 – If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P312 – Call a poison center/doctor if you feel unwell
 P332+P313 – If skin irritation occurs: Get medical advice/attention
 P337+P313 – If eye irritation occurs: Get medical advice/attention
 P362 – Take off contaminated clothing and wash before reuse
 P405 – Store in a secure well-ventilated area. Keep container tightly closed
 P501 – Dispose of contents/container in accordance with local/regional/national regulations

III. COMPOSITION/INFORMATION ON INGREDIENTS

Agro-K Corporation

Date: 6/12/2015

Chemical Compound	CAS Number
Boric Acid	10043-35-3
Monoethanolamine	141-43-5
Ammonium Molybdate	12054-85-2

*Ingredients not specifically listed are non-hazardous and are considered to be confidential

IV. FIRST AID MEASURES

If in Eyes:	Hold eyelid open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. If irritation develops and persists, call a poison control center or doctor immediately for treatment advice.
If on Skin:	Take off contaminated clothing. Rinse skin immediately with plenty of soap and water for 15-20 minutes. Call a poison control center or doctor immediately for treatment advice.
If Swallowed:	Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything to an unconscious or convulsing person. Call a poison control center or doctor immediately for treatment advice.
If Inhaled:	Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. If irritation or dizziness occurs, call a poison control center or doctor for further treatment advice.

Hotline Number: Have the product container or label with you when calling a poison control center or doctor or going for treatment. In case of emergency, call ChemTrec at 1-800-424-9300.

V. FIRE FIGHTING MEASURES

Suitable extinguishing media:	Foam. Dry Powder. Carbon dioxide. Water spray. Sand. Use extinguishing media for underlying cause of fire.
Advice for firefighters:	Wear self-contained breathing apparatus and full protective equipment. Use water spray to cool containers exposed to heat and flame. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
Hazardous combustion products:	Toxic gases may be formed in a fire situation. Carbon monoxide and other asphyxiates may form as well.
Unusual fire and explosion hazards:	If water is used to fight fire or cool containers, contain run-off by diking to prevent contamination of water supplies.

VI. ACCIDENTAL RELEASE MEASURES

Spill procedure:	Capture product and reuse material if uncontaminated. If contaminated, place in a suitable container for proper disposal. Do not allow spilled product to enter water supplies. Contain spilled liquid by diking area.
Clean-up	Cover contained spill with inert absorbent material (sand, vermiculite, etc.). Vacuum, scoop, or sweep up material and place in container for disposal.
Protective equipment:	Equip cleanup crew with proper protection.
Emergency procedures:	If indoors: ventilate area

VII. HANDLING AND STORAGE

Precautions for safe handling: Wash hands and exposed areas with soap and water before eating, drinking, or smoking. Provide good ventilation in process area. Avoid breathing mist or spray.

Storage Conditions: Keep in closed container and properly labeled. Galvanized steel, copper, and copper based alloys should not be used in contact with this material.

Minimum storage temperature: 0 degrees C (32 degrees F)

VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Chemical Compound	CAS Number	ACGIH TLV	OSHA PEL	NIOSH REL
Boric Acid	10043-35-3	2 mg/m ³ (TWA) 6 mg/m ³ (STEL)		
Monoethanolamine	141-43-5	3 mg/m ³ (TWA) 6 mg/m ³ (STEL)	3 ppm, 6 mg/m ³ (TWA) 6 ppm, 15 mg/m ³ (STEL)	3 ppm, 8 mg/m ³ (TWA) 6 ppm, 15 mg/m ³ (STEL)

Personal protective equipment: Avoid all unnecessary exposure. Wear long sleeve shirt, long pants, and chemical resistant footwear with socks to prevent skin contact.

Hand protection: Wear protective gloves.

Eye protection: Wear chemical goggles or safety glasses and full face shield.

Respiratory protection: When exposure to mist or spray is possible, wear NIOSH approved respirator with cartridges/canisters approved for organic vapors.

Other information: Do not eat, drink, or use tobacco during use. Practice good hygiene after use of this material; especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

IX. PHYSICAL AND CHEMICAL PROPERTIES

Physical description: Liquid

Color: Clear colorless to yellow/orange.

Odor: Fishy, amine-like

Odor threshold: No data available

Vapor density: No data available

pH: No data available

Relative density: 1.29

Melting/freezing point: 0 degrees C (32 degrees F)

Solubility: Soluble in water

Boiling point: No data available

Flash point: No data available

Flammability: No data available

Vapor Pressure: No data available

Partition coefficient: No data available

Auto-ignition temperature: No data available

Viscosity: No data available

X. STABILITY AND REACTIVITY

Chemical stability: Stable.

Conditions to avoid: Extreme heat.

Incompatibility with other materials: Strong oxidizing agents, strong bases and acids.

Hazardous combustion: Will not occur.

Hazardous polymerization: Will not occur.

Hazardous decomposition products: Carbon monoxide, carbon dioxide, oxides of boron

XI. TOXICOLOGY

Potential acute toxicity:

Eyes: May cause serious eye irritation.

Skin: Estimated LD50 = 2000 mg/kg (based on component data); may cause skin irritation

Inhalation: May cause respiratory irritation and effects on the central nervous system.
Ingestion: Estimated LD50 = 2800 mg/kg.
Specific target organ toxicity: Components have demonstrated toxicity to the central nervous system, kidneys, and liver upon repeated doses.

Potential chronic toxicity:

Chronic effects: Boric acid has been demonstrated to have an effect on male fertility and the development of an unborn child.

Carcinogenic effects: No known significant effects or critical hazards.

Mutagenic effects: No known significant effects or critical hazards.

Reproductive toxicity: Boric acid has been demonstrated to have an effect on male fertility and the development of an unborn child.

XII. ECOLOGICAL INFORMATION

Aquatic ecotoxicity: Not determined
Biodegradability: Not determined
Environmental Precautions: No known significant effects or critical hazards
Mobility: Not available
Other Adverse Effects: No known significant effects or critical hazards

XIII. DISPOSAL CONSIDERATIONS

Waste Disposal Method: This material must be disposed of according to federal, state, or local procedures under the resource conservation and recovery act.
Container Disposal: Triple rinse and dispose of in accordance the federal, state, and local laws and regulations

XIV. TRANSPORT INFORMATION

Shipping Name: Not regulated by DOT
Hazard Class: None
Identification No.: None
Labels Required: None
Placarding: None

XV. REGULATORY INFORMATION

TSCA Inventory: All components are listed on the TSCA inventory.

SARA Title III Information:

Section 302: None listed
Section 311/312: Immediate (Acute), Delayed (Chronic)
Section 313: None listed

CERCLA: None listed

California Proposition 65: This product does not contain any chemicals known to the State of California to cause cancer and birth defects or reproductive harm.

U.S. State Worker and Community Right-To-Know (RTK) Information:
Monethanolamine - CAS 141-43-5 – MA, NJ, PA

Canadian Domestic Substances List: All components are listed.

XVI. OTHER INFORMATION

DISCLAIMER: The information presented herein is based on available data from reliable sources and is correct to the best of Agro-K's knowledge. Agro-K Corporation makes no warranty, express or implied, regarding the accuracy of the data or the results obtained from the use of this product. Nothing herein may be construed as recommending any practice or any product in violation of any law or regulations. The user is solely responsible for determining the suitability of any material or product for a specific purpose and for adopting any appropriate safety precautions.

Last Revised: June 8, 2015