



SAFETY DATA SHEET

Date Prepared : 05/28/2015

SDS No : NC 0113

ZEROL® 150 (4310-07, 4310-05, 4310-01)

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: ZEROL® 150 (4310-07, 4310-05, 4310-01)**PRODUCT DESCRIPTION:** Synthetic Alkylate**DISTRIBUTOR**

Nu-Calgon
2008 Altom Court
St. Louis, MO 63146
Emergency Phone: 800-554-5499

24 HR. EMERGENCY TELEPHONE NUMBERS

CHEMTREC: 800-424-9300

2. HAZARDS IDENTIFICATION

GHS LABEL

This product is not classified as hazardous according to 29CFR 1910.1200.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt.%	CAS
Synthetic Alkylate(s)	*	Proprietary

COMMENTS: Ingredients and composition are withheld as trade secret in accordance with 29CFR1910.1200(i).

4. FIRST AID MEASURES

EYES: Immediately flush eyes with plenty of water. Get medical attention, if irritation persists.

SKIN: Immediately wash skin with soap and plenty of water. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

INGESTION: Rinse mouth with water. Drink plenty of water. Do not induce vomiting. Get immediate medical attention if you feel unwell. Never give anything by mouth to an unconscious person.

INHALATION: Remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get immediate medical attention.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

EYES: May cause eye irritation.

SKIN: May cause skin irritation.

5. FIRE FIGHTING MEASURES

FLAMMABLE CLASS: Non-flammable.

GENERAL HAZARD: Do NOT use water stream or water jet.

EXTINGUISHING MEDIA: Dry Chemical, CO₂, Foam, Fog or Water Spray.

HAZARDOUS COMBUSTION PRODUCTS: Oxides of carbon.

OTHER CONSIDERATIONS: Keep adjacent containers cool with water spray.

FIRE FIGHTING PROCEDURES: As in any fire, wear self-contained breathing apparatus pressure-demand, (MSHA/NIOSH approved or equivalent) and full protective gear.

FIRE FIGHTING EQUIPMENT: In case of fire wear a full-face positive pressure self contained breathing apparatus and protective suit.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL: Contain and soak up spill with non-combustible absorbent material. Dampen and scoop spilled material into suitable containers, seal and label. Avoid mixing spilled material with other chemicals or debris. Avoid runoff into storm sewers and ditches which lead to waterways.

LARGE SPILL: LARGE SPILLS: Shut off leak if safe to do so. Remove all possible sources of ignition. Contain spill with inert, absorbent material. Reclam into recovery or salvage drums or vacuum truck for proper disposal. Treat residues as small spills.

ENVIRONMENTAL PRECAUTIONS

WATER SPILL: Prevent material from entering drains or watercourses using sand, earth or other appropriate barriers.

LAND SPILL: Prevent contamination of the soil.

GENERAL PROCEDURES: Avoid contact with skin or eyes. Avoid contact with spilled materials. Use appropriate personal protective equipment. Ensure adequate ventilation.

SPECIAL PROTECTIVE EQUIPMENT: Use protective equipment recommended in Section 8.

7. HANDLING AND STORAGE

GENERAL PROCEDURES: Handle in accordance with good industrial hygiene and safety practices.

HANDLING: Avoid breathing (dust, vapor, mist, gas). Avoid contact with skin and eyes. Ground and bond containers when transferring material. Wash thoroughly after handling.

STORAGE: Keep container tightly closed in a dry, well-ventilated place away from heat, open flame, or sources of ignition. Store away from incompatible materials (see section 10).

STORAGE TEMPERATURE: Ambient.

LOADING TEMPERATURE: Ambient

ELECTROSTATIC ACCUMULATION HAZARD: Bond and ground during loading, unloading and transferring material to prevent electrostatic accumulation.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: Provide adequate ventilation. Eye washes and showers for emergency use.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Wear safety glasses with side shields (or goggles) or a face shield.

SKIN: Use protective clothing, sleeves, boots, face protection and chemical resistant gloves. Use extra precautions when working with heated materials.

RESPIRATORY: Use appropriate protection if there is risk of breathing the mists or vapors or heated materials. Use suitable respiratory equipment if risk of insufficient ventilation.

PROTECTIVE CLOTHING: Wear protective clothing appropriate to the risk of exposure.

WORK HYGIENIC PRACTICES: Wash hands, forearms and face before eating, drinking, smoking and using the restroom. Launder contaminated clothing before re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Liquid

APPEARANCE: Clear colorless Liquid

PHYSICAL STATE COMMENTS: Clear, bright, viscous.

pH: Not Available

FLASH POINT AND METHOD: 184°C COC-ASTM D-92

AUTOIGNITION TEMPERATURE: Not Available

VAPOR PRESSURE: Not Available

BOILING POINT: Not Available

POUR POINT: -36°C

THERMAL DECOMPOSITION: Not Available

SPECIFIC GRAVITY: 0.87 at 15°C

VISCOSITY #1: 30 cSt at 40°C

VISCOSITY #2: 4.3 cSt at 100°C

10. STABILITY AND REACTIVITY

HAZARDOUS POLYMERIZATION: None

STABILITY: Stable under normal conditions.

CONDITIONS TO AVOID: Excessive heat, sparks or open flames.

POSSIBILITY OF HAZARDOUS REACTIONS: None Expected.

HAZARDOUS DECOMPOSITION PRODUCTS: Under normal conditions, no hazardous decomposition products should be produced.

INCOMPATIBLE MATERIALS: Strong oxidizers.

11. TOXICOLOGICAL INFORMATION

ACUTE

DERMAL LD₅₀: > 2000 mg/kg

ORAL LD₅₀: > 2000 mg/kg

EYE EFFECTS: Minimal irritation.

SKIN EFFECTS: Minimal irritation.

CARCINOGENICITY

Notes: Contains no ingredient listed as a carcinogen.

REPEATED DOSE EFFECTS: None Expected.

IRRITATION: Not a primary irritant.

SENSITIZATION: None Expected.

REPRODUCTIVE EFFECTS: None Expected.

MUTAGENICITY: None Expected.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL DATA: Not classified as an environmental hazard.

ECOTOXICOLOGICAL INFORMATION: This product is not expected to be toxic to aquatic life.

BIOACCUMULATION/ACCUMULATION: Expected to have a very slow rate of bioaccumulation.

DISTRIBUTION: Insoluble in water. Adsorbs to soil and has low mobility.

CHEMICAL FATE INFORMATION: Expected to be partially or slowly biodegradable.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Dispose of contents/container to a licensed contractor or facility in accordance with local, state and federal regulations.

PRODUCT DISPOSAL: Materials are suitable for burning or disposal at a supervised incineration facility.

EMPTY CONTAINER: Clean container thoroughly and dispose to licensed disposal contractor. Do not weld, cut, or braze empty containers, or allow product residue to come in contact with other sources of ignition as they may contain residue which could ignite.

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)

PROPER SHIPPING NAME: Not regulated for Transport

ROAD AND RAIL (ADR/RID)

PROPER SHIPPING NAME: Not regulated for Transport

AIR (ICAO/IATA)

SHIPPING NAME: Not regulated for Transport

VESSEL (IMO/IMDG)

SHIPPING NAME: Not regulated for Transport

15. REGULATORY INFORMATION

UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

311/312 HAZARD CATEGORIES: Not hazardous.

313 REPORTABLE INGREDIENTS: No ingredients at detectable levels.

TSCA (TOXIC SUBSTANCE CONTROL ACT)

TSCA STATUS: All components listed or exempt.

CANADA

DOMESTIC SUBSTANCE LIST (INVENTORY): All components are listed or exempt.

16. OTHER INFORMATION

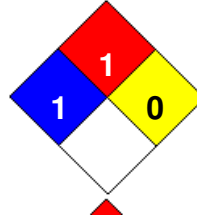
APPROVED BY: Audris King **TITLE:** HS&E Manager

PREPARED BY: A. King **Date Prepared:** 05/28/2015

HMIS RATING

HEALTH	<input type="checkbox"/>	1
FLAMMABILITY	<input type="checkbox"/>	1
PHYSICAL HAZARD	<input type="checkbox"/>	0
PERSONAL PROTECTION	<input type="checkbox"/>	

NFPA CODES



MANUFACTURER DISCLAIMER: The information is based on the data of which we are aware and is believed to be correct as of the data hereof. Since the information contained herein may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modification of the information, we do not assume any responsibility for the result of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.



MATERIAL SAFETY DATA SHEET

SECTION 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Company Name Nu-Calgon Wholesaler, Inc.		Phone Number (314) 469-7000 / (800) 554-5499		CHEMTREC (800) 424-9300	
Street Address 2008 Altom Court		City St. Louis	State MO	Postal Code 63146-4151	Last Update 1/08/07
Product Name Zerol 150TD		Product Number 4307	Product Use Refrigeration Oil		EPA Registration # N/A

SECTION 2 – COMPOSITION/INFORMATION ON INGREDIENTS

<u>Hazardous Ingredients</u>	<u>% By Wt.</u>	<u>CAS Number</u>	<u>TLV</u>	<u>PEL</u>
THIS PRODUCT IS CONSIDERED AS NON-HAZARDOUS (SEE SECTION 14).				

SECTION 3 – HAZARD IDENTIFICATION

Emergency Overview: Clear yellow liquid, Odorless. HMIS Rating Health 1 ; Fire 1; Reactivity 0. Primary Route of Exposure: Skin.
Potential Health Effects
Eyes: Expected to cause no more than minor eye irritation. Application of a similar product into the eyes of rabbits produced very slight membrane irritation without corneal injury. Avoid eye contact as good industrial practice.
Skin: Not a primary skin irritant but may cause skin irritation on repeated or prolonged contact. Application of a similar product onto the skin of rabbits produced slight erythema and edema.
Ingestion: May cause nausea. Not expected to be acutely toxic by ingestion.
Inhalation: Avoid breathing vapor or mist. Under normal use conditions, this product is not an inhalation hazard. Prolonged exposure to vapors may cause dizziness and headaches.
Chronic Exposure: No Data.
Carcinogenicity: No Data.
Medical Conditions Aggravated by Exposure: There is no evidence that this product aggravates an existing medical condition.

SECTION 4 – FIRST AID MEASURES

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes while holding the eyelids open. If irritation persists, see a physician.
Skin: Remove contaminated clothing. Wash skin thoroughly with soap and water. Launder contaminated clothing. See a doctor if irritation persists.
Ingestion: If swallowed, call a physician immediately. ONLY induce vomiting at the instruction of a physician. Never give anything by mouth to an unconscious person. If medical advice cannot be obtained, take the person, product container and MSDS to the nearest medical emergency center.
Inhalation: Remove to fresh air. If not breathing, give artificial respiration and seek medical attention immediately. Remove material from eyes, skin and clothing.

SECTION 5 – FIREFIGHTING MEASURES

Flash Point: >150°C / >302°F
Autoignition Temp: >340°C / >644°F
Hazardous Products of Combustion: No Data.
Flammable Limits in Air: No Data.
Extinguishing Media: Use water spray, dry chemical, foam, or carbon dioxide to extinguish flames. Use water spray to cool fire-exposed containers. Water or foam may cause frothing.
Fire and Explosion Hazards: None.
Special Firefighting Procedures: Wear full protective clothing and positive pressure breathing apparatus.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Spill or Leak: Ventilate area. Avoid breathing vapor. Wear appropriate personal protective equipment, including appropriate respiratory protection. Contain spill if possible. Wipe up or absorb on suitable material and shovel up. Prevent entry into sewers and waterways. Avoid contact with skin, eyes or clothing.

SECTION 7 – HANDLING AND STORAGE

Handling Procedures and Equipment: Minimum feasible handling temperatures should be maintained.

Storage Requirements: Periods of exposure to high temperatures should be minimized. Water contamination should be avoided.

SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory Protection: Airborne concentrations should be kept to lowest levels possible. If vapor, dust or mist is generated and the occupational exposure limit of the product, or any component of the product, is exceeded, use appropriate NIOSH or MSHA approved air purifying or air-supplied respirator after determining the airborne concentration of the contaminant. Air supplied respirators should always be worn when airborne concentration of the contaminant or oxygen content is unknown.

Eye Protection: Safety glasses, chemical type goggles, or face shield recommended to prevent eye contact.

Protective Clothing: Protective clothing such as coveralls or lab coats should be worn. Launder or dry-clean when soiled. Gloves and boots resistant to chemicals and petroleum distillates required. Exposed workers should wash exposed skin several times daily with soap and water. Remove and dry-clean or launder clothing soaked or soiled with this material before reuse. Dry cleaning of contaminated clothing may be more effective than normal laundering. Inform individuals responsible for cleaning of potential hazards associated with handling contaminated clothing.

Exposure Guidelines: None established for product.

Specific Engineering Controls (such as ventilation, enclosed process): Local exhaust ventilation recommended if generating vapor, dust, or mist. If exhaust ventilation is not available or inadequate, use MSHA or NIOSH approved respirator as appropriate.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Physical Form: liquid.	Freezing Point: Not determined°C/ °F	% Volatile by Weight: No Data.%
Color: Clear yellow	Vapor Density [air =1]: Not determined	Evaporation Rate: No Data.
Odor: Odorless	Vapor Pressure: Not determined	Specific Gravity: (water=1): .86 - .88
Boiling Point: > 300°C/>572°F	Solubility in Water: Negligible	pH (concentrate): No Data.

SECTION 10 – STABILITY AND REACTIVITY

Chemical Stability: Stable (thermal, light).

Hazardous Polymerization: Will not occur.

Incompatibilities: May react with strong oxidizing materials.

Reactive Conditions to avoid: No Data.

Decomposition Products: Normal combustion forms carbon dioxide and water vapor. Incomplete combustion can form carbon monoxide.

SECTION 11 – TOXICOLOGICAL INFORMATION

Hazardous Ingredients	CAS #	EINECS #	LD 50 of Ingredient (Specify Species)	LC50 of Ingredient (Specify Species)
Skin: (Draize) believed to be between 3-5 (rabbit) moderately irritating (maximum 8) Eyes: (Draize) believed to be < 15 (rabbit) no appreciable effect (maximum 110) Sensitization: Not determined			Oral: believed to be > 5 g/kg (rat) practically non-toxic Inhalation: Not determined Dermal: believed to be > 10 g/kg (rabbit) practically non-toxic	
Other: This product, or a component of this product, has been shown to damage red blood cells or blood forming organs, and has caused anemia in laboratory animals.				

SECTION 12 – ECOLOGICAL INFORMATION

Hazardous Ingredients	Aquatic Toxicity Data
	Biodegradability: Estimated to be less than 40% degradation over a test period of more than 28 days. Potential to Bioaccumulation: This product is estimated to have a very slow rate of bioaccumulation.

SECTION 13 – DISPOSAL CONSIDERATIONS

Waste Disposal: This product has been evaluated for RCRA characteristics and does not meet the criteria of a hazardous waste if discarded in its purchased form. Under RCRA, it is the responsibility of the user of the product to determine at the time of disposal, whether the product meets RCRA criteria for hazardous waste. This is because product uses, transformations, mixtures, processes, etc. may render the resulting materials hazardous.

SECTION 14 – TRANSPORTATION INFORMATION

Special Shipping Information: Not regulated

<u>Purview</u>	<u>Proper Shipping Name</u>	<u>UN Number</u>	<u>Packing Group</u>	<u>Hazard Class</u>
DOT (Land)	Not regulated			
IMO (Water)	Not regulated			
ICAO (Air)	Not regulated			

SECTION 15 – REGULATORY INFORMATION

WHMIS Classification: (Workplace Hazardous Material Information System)	Not regulated by WHMIS.
SARA Title III: (Superfund Amendments & Reauthorization Act)	This product and/or its components are considered non-hazardous by the following standards: OSHA Hazard Comm. Standard Classification SARA Title III Section 311 Hazardous Categorization No chemicals subject to reporting per the following standards: SARA Title III Section 302/304 Extremely Hazardous Substances. SARA Title III Section 313 Toxic Chemical. California Prop. 65 States Right-to-Know Regulations. State list: CT (Connecticut), FL (Florida), IL (Illinois), MI (Michigan), LA (Louisiana), MA (Massachusetts), NJ (New Jersey), PA (Pennsylvania), RI (Rhode Island)
OSHA: (Occupational Safety & Health Administration)	No Data.
TSCA: (Toxic Substance Control Act)	This product, or its components, are listed on, or are exempt from the Toxic Substance Control Act (TSCA) Chemical Substance Inventory.
VOC: (volatile Organic Compounds)	No Data.
CPR: (Canadian Controlled Products Regulations)	This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations.
EINECS: (European Inventory of Existing Commercial Chemical Substances)	This product, or its components, are listed on or are exempt from EINECS.
DSL / NDSL: (Canadian Domestic Substance List)(Non-Domestic Substance List)	This product, or its components, are listed on or are exempt from the Canadian Domestic Substance List (DSL).
CERCLA: (Comprehensive Response Compensation & Liability Act)	No chemicals subject to report.
IDL: (Canadian Ingredient Disclosure List)	No Data.
NFPA (HMIS) Rating: (Hazardous Materials Identification System)	No Data.

SECTION 16 – OTHER INFORMATION

Viscosity: 26 - 31 cSt at 40 °C.

The information contained herein is based on the data available to us and is believed to be correct. However, Nu-Calgon Wholesaler Inc. makes no warranty, expressed, or implied, regarding the accuracy of this data or the results to be obtained from the use thereof. Nu-Calgon Wholesaler Inc. assumes no liability for injury from the use of the product described herein.