Safety Data Sheet

SDS No. 12048

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

DURALIFE® GASOLINE FUEL SYSTEM TREATMENT, OCTANE BOOSTER
Product Use: Gasoline Fuel Additive.
Manufacturer:
AMTECOL, Inc.
810 Wright Ave, Richmond, CA 94804, U.S.A.
www.amtecol.com
Transportation Emergency & Emergency spill information :
Call CHEMTREC : (+1) 703-527-3887 (outside the U.S.), 1-800-424-9300 (in the U.S.)
Health Emergency : Amtecol Emergency Information Center : 1-866-268-1888
Other Product Information :
Technical Assistance/SDS info & Customer Service : 1-510-235-7979 Email : info@amtecol.com

SECTION 2. HAZARDS IDENTIFICATION

GHS Hazard Classification

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture:
Flammable Liquids- Category 4
Aspiration Hazard - Category 1
Target Organ Toxicant (Central Nervous System)- Category 3
Aquatic Hazard (Acute) - Category 3
Chronic Aquatic Toxicity - Category 3.

Label Elements

Signal word: Danger

EMERGENCY OVERVIEW

- FLAMMABLE LIQUID AND VAPOUR.
- HARMFUL OR FATAL IF SWALLOWED
- CAUSES EYE IRRITATION
- MAY CAUSE DIZZINESS, DROWSINESS AND REDUCED ALERTNESS
- POSSIBLE BIRTH DEFECT HAZARD – CONTAINS MATERIAL THAT MAY CAUSE BIRTH DEFECTS BASED ON ANIMAL DATA
- MAY CAUSE DAMAGE TO KIDNEY

SECTION 3. COMPOSITION INFORMATION/ INGREDIENTS

COMPONENTS	CAS NUMBER	% WEIGHT
DISTILLATES, PETROLEUM, HYDROTREATED LIGHT	64742-47-8	< 80
SOLVENT NAPHTHA (PETROLEUM), LIGHT AROMATIC	64742-95-6	<1.5
1,2,4-TRIMETHYLBENZENE	95-63-6	<3
NAPHTHALENE	91-20-03	<0.15
ALKYL DITHIO THIADIAZOLE	89347-09-1	<1

SECTION 4. FIRST AID MEASURES

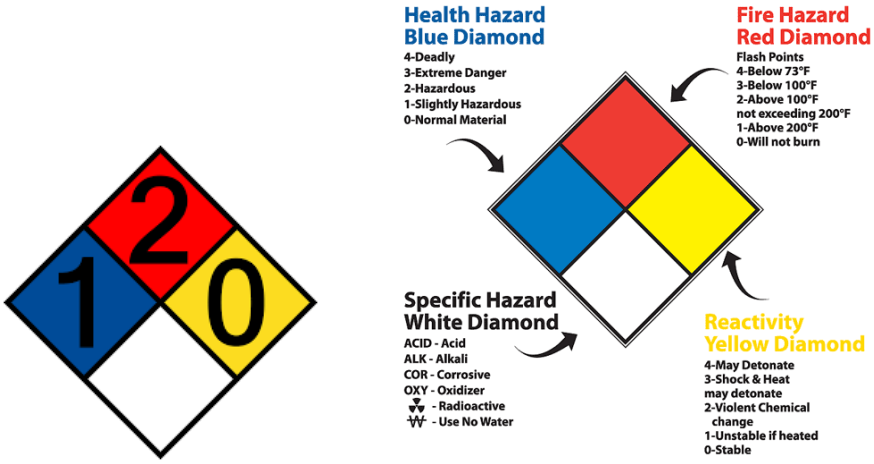
Eye Contact : No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.
Skin Contact : Flush contaminated skin with plenty of water. Continue to rinse for at least 20 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Inhalation(Breathing) : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Ingestion(Swallowing) : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Most important symptoms and effects, both acute and delayed:
Eye: Not expected to cause prolonged or significant eye irritation.
Skin: Contact with the skin is not expected to cause prolonged or significant irritation. Contact with the skin is not expected to cause an allergic skin response. Not expected to be harmful to internal organs if absorbed through the skin.
Ingestion: Highly toxic; may be fatal if swallowed. Because of its low viscosity, this material can directly enter the lungs, if swallowed, or if subsequently vomited. Once in the lungs it is very difficult to remove and can cause severe injury or death.
Inhalation: Excessive or prolonged breathing of this material may cause central nervous system effects. Central nervous system effects may include headache, dizziness, nausea,

vomiting, weakness, loss of coordination, blurred vision, drowsiness, confusion, or disorientation. At extreme exposures, central nervous system effects may include respiratory depression, tremors or convulsions, loss of consciousness, coma or death.
Notes to Physician: Acute aspirations of large amounts of oil-laden material may produce a serious aspiration pneumonia. Patients who aspirate these oils should be followed for the development of long-term sequelae. Inhalation exposure to oil mists below current workplace exposure limits is unlikely to cause pulmonary abnormalities.

SECTION 5. FIREFIGHTING MEASURES

Extinguishing Media : Use dry chemical, foam, water fog or carbon dioxide CO2 to extinguish flames.
Unsuitable Extinguishing Media : Do not use a solid water stream as it may scatter and spread fire.

NFPA 704 HAZARD RATINGS:



Specific Hazards Arising from the Chemical: Combustible liquid and vapor. Vapors may accumulate in confined areas and present a fire of explosion hazard. Vapors may be heavier than air and travel along surfaces to remote ignition sources and flash back. Closed containers may rupture if exposed to extreme heat. Burning may produce carbon monoxide, carbon dioxide and oxides of nitrogen.
Protection of Fire Fighters:
Fire Fighting Instructions: For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.
Combustion Products: Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion. Combustion may form oxides of: Nitrogen, Sulfur.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures: Caution – slip hazard. Eliminate all ignition sources and ventilate the area. Wear appropriate protective equipment.
Methods and Materials for Containment and Clean-Up: Collect material using non-combustible absorbents and disposal in a container suitable for flammable waste.
Environmental Precautions: Do not allow into any sewer, on the ground or into any waterway. Spill Management: Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. All equipment used when handling the product must be grounded. A vapor suppressing foam may be used to reduce vapors. Use clean non-sparking tools to collect absorbed material. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.
Reporting: Follow prescribed procedures for reporting and responding to larger releases. Report spills to local authorities and/or the U.S. Coast Guard's National Response Center at (800) 424-8802 as appropriate or required.

SECTION 7. HANDLING AND STORAGE

Precautionary Measures: Harmful or Fatal if Swallowed. Contains petroleum distillates. Avoid contact with eyes, skin and clothing. Avoid breathing vapors. Use with adequate ventilation. Wash exposed skin thoroughly with soap and water after use. Flammable Liquid! Do not smoke during use.
General Handling Information: Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.
Static Hazard: Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures. For more information, refer to OSHA Standard 29 CFR 1910.106, 'Flammable and Combustible Liquids', National Fire Protection Association (NFPA 77, 'Recommended Practice on Static Electricity', and/or the American Petroleum Institute (API) Recommended Practice 2003, 'Protection Against Ignitions Arising Out of Static, Lightning, and Stray Currents'.
Conditions for safe storage: Keep container(s) tightly closed and properly labeled. Use and store this material in cool, dry, well-ventilated area away from heat and all sources of ignition. Store only in approved containers. Keep away from any incompatible material . Protect container(s) against physical damage.
Container Warnings: Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force.
"Empty" containers retain residue and may be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, or other sources of ignition. They may explode and cause injury or death. "Empty" drums should be completely drained,

properly bunged, and promptly shipped to the supplier or a drum reconditioner. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations. Before working on or in tanks which contain or have contained this material, refer to OSHA regulations, ANSI Z49.1, and other references pertaining to cleaning, repairing, welding, or other contemplated operations.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

General considerations:
Consider the potential hazards of this material (see Section 3), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.
Engineering controls: The hazard potential of this product is relatively low. General ventilation is usually adequate. For large scale use of this product: use local exhaust ventilation and enclosure, if necessary, to control amount in the air. Do not allow product to accumulate in the air in work or storage areas, or in confined spaces. Use non-sparking ventilation systems, approved explosion-proof equipment and intrinsically safe electrical systems in areas where this product is used and stored. Control static electricity discharges which includes bonding of equipment to ground. Use only non-combustible, compatible materials for walls, floors, ventilation system, air cleaning devices, pallets, shelving. Provide safety shower in work area, if contact or splash hazard exists.

Occupational Exposure Limits:

Component	ACGIH	OSHA Z-1	Other
Distillates, petroleum, hydrotreated light	TWA: 200 ppm	-	
Solvent naphtha (petroleum), light aromatic	-	TWA: 400 ppm	
1,2,4-trimethylbenzene	TWA: 25 ppm STEL: none established	TWA: 25 ppm	
Naphthalene	TWA: 10 ppm STEL: none established	TWA: 10 ppm	

Note: State, local or other agencies or advisory groups may have established more stringent limits. Consult an industrial hygienist or similar professional, or your local agencies, for further information.

PERSONAL PROTECTIVE EQUIPMENT

Eye/Face Protection: No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.
Skin Protection: No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances in the workplace. Suggested materials for protective gloves include: Chlorinated Polyethylene (or Chlorosulfonated Polyethylene), Nitrile Rubber, Polyurethane, Viton.
Respiratory Protection: Determine if airborne concentrations are below the recommended occupational exposure limits for jurisdiction of use. If airborne concentrations are above the

acceptable limits, wear an approved respirator that provides adequate protection from this material, such as: Air-Purifying Respirator for Organic Vapors.
Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Light Green	**Pour Point :** N/A
Odor : Not determined	**Flash Point :** Min 140°F (Min 60°C)
Physical State : Liquid	**Viscosity @ 100 °C :** N/A
Evaporation Rate (nBuAc=1): N/A	**Vapor Pressure:** N/A
Initial Boiling Point : Min 365°F (Min180°C)	**Vapor Density (air=1) :** No Data Available
Melting Point : N/A	**pH :** N/A
Specific Gravity : < 1	**Decomposition temperature:** No Data Available
Flammability (solid, gas): N/A	**Auto-ignition Temperature:** No data
Percent Volatile: Negligible	**Solubility :** insoluble in water
Octanol/Water Partition Coefficient: No data available	**Flammability (Explosive) Limits (% by volume in air):** Lower: Not Applicable Upper: Not Applicable

SECTION 10. STABILITY AND REACTIVITY

Reactivity: Normally unreactive
Possibility of hazardous reactions: Reaction with strong oxidizers will generate heat.
Chemical Stability: This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.
Incompatibility With Other Materials: Strong oxidizing agents and reducing agents
Hazardous Decomposition Products: Very toxic carbon monoxide, carbon dioxide; very toxic, flammable aldehydes.
Conditions to Avoid: High temperatures. Accumulation of static charge. Open flames, sparks, static discharge, heat and other ignition sources. Prolonged exposure to air. Generation of dust. Temperatures above 43.0 oC (109.4 oF)

SECTION 11. TOXICOLOGICAL INFORMATION

Potential Health Effects:
Acute Toxicity

Product Name	Route	Species	Value
1,2,4-trimethylbenzene	Dermal LD50 Inhalation LC 50 Oral LD 50	Rabbit Rat Rat	not available 18mg/L(4hr) 5000mg/kg
Naphthalene	Dermal LD50 Inhalation LC 50 Oral LD 50	Rabbit Rat Rat	> 20,000mg/kg 0.739mg/L(4hr) 490mg/kg

Acute Hazards:
Inhalation: May cause irritation of the nose and throat with headache, particularly from mists. High vapor concentrations caused, for example, by heating the material in an enclosed and poorly ventilated workplace, may produce nausea, vomiting, headache, dizziness and irregular eye movements.
Skin Contact: Causes skin irritation. Prolonged or repeated contact may cause defatting and drying of the skin and dermatitis.
Eye Contact: Direct contact may cause eye irritation with redness, tearing and pain. **Ingestion:** Aspiration hazard – may enter the lungs during swallowing or vomiting and cause serious lung damage, which may be fatal. Ingestion may also cause gastrointestinal effects such as nausea, vomiting and diarrhea and central nervous system effects with symptoms of drowsiness, headache, dizziness and unconsciousness.
Chronic Effects: Reports have associated prolonged or repeated overexposure to petroleum distillates with adverse liver, kidney and bone marrow effects and permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the product may be harmful or fatal.
Carcinogenicity Listing: Naphthalene and Ethylbenzene are classified by IARC as a possible human carcinogen (group 2B). Naphthalene is classified by NTP as a reasonably anticipated human carcinogen. None of the other ingredients of this product are listed as carcinogens by IARC, NTP, or OSHA.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity
Acute Aquatic Toxicity

Product Name	LC 50	EC 50
1,2,4-trimethylbenzene	Oncorhynchus mykiss 9.22 mg/L/96 hr.	Daphnia Magna: 6.14 mg/L/48 hr.
Naphthalene	Oncorhynchus gorbuscha (pink salmon) 1.4 mg/L/96	Not available

Persistence and Degradability:
Trimethylbenzene: Reached 4-18% of its theoretical BOD in 4 weeks
Naphthalene: Reached 2% of its theoretical BOD in 4 weeks
Bioaccumulative Potential:
Trimethylbenzene: Bio concentration in aquatic organisms is moderate to high.
Naphthalene: BCF 23 to 146, these BCF values suggest the potential for bio concentration in aquatic organisms is low to high.
Mobility in soil:
Trimethylbenzene: Will have low mobility in soil.
Naphthalene: Is expected to have moderate to low mobility in soil **Other adverse effects**: May be harmful to the aquatic environment.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods
The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non- recyclable products via a licensed waste disposal

contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14. TRANSPORT INFORMATION

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.
DOT Shipping Description: UN1268, PETROLEUM DISTILLATES, N.O.S., COMBUSTIBLE LIQUID, III ADDITIONAL INFORMATION: NON-BULK PACKAGES ARE EXEMPTED FROM THE PROVISIONS OF 49 CFR IN US JURISDICTIONS.
IMO/IMDG Shipping Description: NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER THE IMDG CODE
ICAO/IATA Shipping Description: NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER ICAO TI OR IATA DGR
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code: Not applicable

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations
Canada
Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)
All ingredients are listed on the DSL/NDSL.
USA
Toxic Substances Control Act (TSCA) Section 8(b) All ingredients are listed on the TSCA Inventory. Additional USA Regulatory Lists
California Proposition 65:
WARNING: This product contains chemicals known to the State of California to cause cancer.
Custom Regulatory 1
Consumer Product Safety Improvement Act of 2008 General Conformity Certification The Supplier identified in Section 1 of this MSDS has evaluated this product and certifies it to be labeled and packaged in compliance with the applicable provisions of the Federal Hazardous Substance Act as stated in 16 CFR 1500 and enforced by the Consumer Product Safety Commission, and where applicable the products that require Child Resistant Closures are packaged in accordance with the Poison Prevention Packaging Act as stated in 16 CFR 1700 and enforced by the Consumer Product Safety Commission. All closures have been tested in accordance with the latest protocols. No other testing is required to certify compliance with the above. The date of manufacture is stamped on the product container.

SECTION 16. OTHER INFORMATION

HMIS RATINGS: Health: 2 Flammability: 2 Reactivity: 0
(0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme, PPE:- Personal Protection Equipment Index recommendation, *- Chronic Effect Indicator). These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA) or the

National Paint and Coating Association (for HMIS ratings).

Health and Environmental Label Language

CAUTION : Contains Petroleum Lubricant. Repeated skin contact can cause skin disorders .

ATTENTION : Used motor oil is a possible skin cancer hazard based on animal data. Repeated exposure to oil mist in excess of the OSHA limit (5mg/m3) can result in accumulation of oil droplets in pulmonary tissue .

PRECAUTIONARY MEASURES : Avoid excessive & prolonged skin contact. Wash thoroughly after handling. Avoid generation and inhalation of oil mists .

INSTRUCTIONS IN CASE OF FIRE OR SPILL : In case of fire, use water spray, foam, dry chemical or carbon dioxide. Water spray may be ineffective, but can be used to cool containers. In case of spill, do not use water, soak up with absorbent material .

DON'T POLLUTE, CONSERVE RESOURCES, RETURN USED OIL TO COLLECTION CENTER .

ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:

OSHA - Occupational Safety and Health Administration	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	PEL - Permissible Exposure Limit
ACGIH - American Conference of Government Industrial Hygienists	CAS - Chemical Abstract Service Number
GHS - Globally Harmonized System	SDS - Safety Data Sheet
API - American Petroleum Institute	IMO/IMDG - International Maritime Dangerous Goods Code
DOT - Department of Transportation (USA)	NCEL - New Chemical Exposure Limit
IARC - International Agency for Research on Cancer	NFPA - National Fire Protection Association (USA)
EPA - Environmental Protection Agency	SCBA - Self-Contained Breathing Apparatus
TLV - Threshold Limit Value	NTP - National Toxicology Program (USA)
HMIS -Hazardous Materials Identification System	WHMIS -Workplace Hazardous Materials Information System
NIOSH-National Institute for Occupational Safety and Health	TSCA-Toxic Substances Control Act
CASRN - Chemical Abstracts Service Registry Number	CERCLA - The Comprehensive Environmental Response, Compensation, and Liability Act
INSHT - National Institute for Health and Safety at Work	IOPC - International Oil Pollution Compensation
LEL - Lower Explosive Limit	NE - Not Established

SARA - Superfund Amendments and Reauthorization Act	UEL - Upper Explosive Limit

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Disclaimer of Warranty : The above information is based on the data of which we are aware and is believed to be correct as of the data hereof. Since this information 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 results 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.

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