

SAFETY DATA SHEET

Issuing Date 15-Feb-2011

Revision Date 18-Mar-2015

Revision Number 2



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1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name 12v Lead Acid Battery Z Mower

Other means of identification

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended Use Lead acid battery

Uses advised against No information available

Details of the supplier of the safety data sheet

Supplier Name The Toro Company
Supplier Address 8111 Lyndale Avenue South
Bloomington
MN
8515
US
Supplier Phone Number Phone:952-887-8515
Contact Phone951-785-3482
Supplier Email eden.allen@toro.com
Emergency telephone number

2. HAZARDS IDENTIFICATION

Classification

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200). This product is an article which is a sealed battery and as such does not require an MSDS per the OSHA hazard communication standard unless ruptured. The hazards indicated are for a ruptured battery.


| | |
|---|---------------------------|
| Acute toxicity - Oral | Category 4 |
| Acute toxicity - Inhalation (Gases) | Category 4 |
| Acute toxicity - Inhalation (Vapors) | Category 4 |
| Acute toxicity - Inhalation (Dusts/Mists) | Category 2 |
| Skin corrosion/irritation | Category 1 Sub-category A |
| Serious eye damage/eye irritation | Category 1 |



| | |
|--|-------------|
| Carcinogenicity | Category 1A |
| Reproductive toxicity | Category 1A |
| Specific target organ toxicity (repeated exposure) | Category 2 |

GHS Label elements, including precautionary statements

Emergency Overview

| | |
|---|--|
| Signal word | Danger |
| <p>Hazard Statements Harmful if swallowed Fatal if inhaled Causes severe skin burns and eye damage May cause cancer May damage fertility or the unborn child May cause damage to organs through prolonged or repeated exposure</p> | |
|  | |
| <p>This product is an article which contains a chemical substance. Safety information is given for exposure to the article as sold. Intended use of the product should not result in exposure to the chemical substance. This is a battery. In case of rupture: the above hazards exist.</p> | |
| Appearance Black | Physical State Solid Odor Neutral |

Precautionary Statements - Prevention

- Obtain special instructions before use
- Do not handle until all safety precautions have been read and understood
- Use personal protective equipment as required
- Wash face, hands and any exposed skin thoroughly after handling
- Do not eat, drink or smoke when using this product
- Use only outdoors or in a well-ventilated area
- Do not breathe dust/fume/gas/mist/vapors/spray
- Wear respiratory protection

Precautionary Statements - Response

- Specific treatment is urgent (see .? on this label)
- Immediately call a POISON CENTER or doctor/physician
- Specific treatment (see supplemental first aid instructions on this label)

Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 Immediately call a POISON CENTER or doctor/physician

Skin

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
 Wash contaminated clothing before reuse

Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
 Call a POISON CENTER or doctor/physician if you feel unwell
 Immediately call a POISON CENTER or doctor/physician



Ingestion

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

Rinse mouth

Do NOT induce vomiting

Precautionary Statements - Storage

Store locked up

Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Not applicable

Unknown Toxicity

0% of the mixture consists of ingredient(s) of unknown toxicity

Other information

Very toxic to aquatic life with long lasting effects

Interactions with Other Chemicals

Use of alcoholic beverages may enhance toxic effects.

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name | CAS No | Weight-% | Trade Secret |
|---------------|-----------|----------|--------------|
| Lead | 7439-92-1 | 60 - 100 | * |
| Sulfuric acid | 7664-93-9 | 30 - 60 | * |
| Antimony | 7440-36-0 | 1 - 5 | * |
| Arsenic | 7440-38-2 | < 0.1 | * |

*The exact percentage (concentration) of composition has been withheld as a trade secret

4. FIRST AID MEASURES

First aid measures**General Advice**

First aid is upon rupture of sealed battery.

Eye Contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present and easy to do. Continue rinsing. Seek immediate medical attention/advice.

Skin Contact

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Seek immediate medical attention/advice.

- Inhalation** Remove to fresh air. If breathing has stopped, give artificial respiration. Get medical attention immediately. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If breathing is difficult, (trained personnel should) give oxygen. Delayed pulmonary edema may occur. Get medical attention immediately if symptoms occur. Do not breathe dust.
- Ingestion** Do NOT induce vomiting. Rinse mouth immediately and drink plenty of water. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately.
- Self-protection of the first aider** Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Wear personal protective clothing (see section 8). Do not breathe dust. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

Most important symptoms and effects, both acute and delayed

- Most Important Symptoms and Effects** Burning sensation. Coughing and/ or wheezing. Difficulty in breathing. Lead poisoning is characterized by a metallic taste in the mouth, loss of appetite indigestion, nausea, vomiting, constipation, sleep disturbances and overall weakness. Severe exposures can lead to shock, circulatory collapse, and death.

Indication of any immediate medical attention and special treatment needed

- Notes to Physician** Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media

CAUTION: Use of water spray when fighting fire may be inefficient.

Specific Hazards Arising from the Chemical

The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating gases and vapors.

| | |
|--------------------------|--|
| Uniform Fire Code | Corrosive: Other--Solid Highly Toxic: Solid |
|--------------------------|--|

Hazardous Combustion Products

Carbon oxides.

Explosion Data

| | |
|---|-----|
| Sensitivity to Mechanical Impact | No. |
|---|-----|

| | |
|--|-----|
| Sensitivity to Static Discharge | No. |
|--|-----|

Protective equipment and precautions for firefighters

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

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

| | |
|-----------------------------|--|
| Personal Precautions | Attention! Corrosive material. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Avoid generation of dust. Do not breathe dust. |
|-----------------------------|--|

| | |
|--------------------------|--|
| Other Information | Refer to protective measures listed in Sections 7 and 8. |
|--------------------------|--|

Environmental Precautions

| | |
|----------------------------------|--|
| Environmental Precautions | Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage if safe to do so. Should not be released into the environment. Do not allow to enter into soil/subsoil. Prevent product from entering drains. |
|----------------------------------|--|

Methods and material for containment and cleaning up

| | |
|--------------------------------|---|
| Methods for Containment | Prevent further leakage or spillage if safe to do so. |
|--------------------------------|---|

| | |
|--------------------------------|--|
| Methods for cleaning up | Pick up and transfer to properly labeled containers. |
|--------------------------------|--|

7. HANDLING AND STORAGE

Precautions for safe handling

Handling

In case of rupture: Handle in accordance with good industrial hygiene and safety practice. In case of insufficient ventilation, wear suitable respiratory equipment. Use only with adequate ventilation and in closed systems. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse.

Conditions for safe storage, including any incompatibilities

Storage

Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from moisture. Store locked up. Keep out of the reach of children. Store away from other materials.

Incompatible Products

Acids. Bases. Oxidizing agent.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

| Chemical Name | ACGIH TLV | OSHA PEL | NIOSH IDLH |
|----------------------------|---|--|--|
| Lead 7439-92-1 | TWA: 0.05 mg/m ³ | TWA: 50 µg/m ³ TWA: 50 µg/m ³ Pb Action Level: 30 µg/m ³ Poison, See 29 CFR 1910.1025 Action Level: 30 µg/m ³ Pb Poison, See 29 CFR 1910.1025 | IDLH: 100 mg/m ³ TWA: 0.050 mg/m ³ |
| Sulfuric acid 7664-93-9 | TWA: 0.2 mg/m ³ thoracic fraction | TWA: 1 mg/m ³ (vacated) TWA: 1 mg/m ³ | IDLH: 15 mg/m ³ TWA: 1 mg/m ³ |
| Antimony 7440-36-0 | TWA: 0.5 mg/m ³ TWA: 0.5 mg/m ³ Sb | TWA: 0.5 mg/m ³ TWA: 0.5 mg/m ³ Sb (vacated) TWA: 0.5 mg/m ³ (vacated) TWA: 0.5 mg/m ³ Sb | IDLH: 50 mg/m ³ TWA: 0.5 mg/m ³ |
| Arsenic 7440-38-2 | TWA: 0.01 mg/m ³ TWA: 0.01 mg/m ³ As | TWA: 10 µg/m ³ As Action Level: 5 µg/m ³ As (vacated) TWA: 0.5 mg/m ³ | IDLH: 5 mg/m ³ Ceiling: 0.002 mg/m ³ 15 min |

ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits Immediately Dangerous to Life or Health

Other Exposure Guidelines

Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992) See section 15 for national exposure control parameters

Appropriate engineering controls

Engineering Measures

Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/Face Protection

Face protection shield.

| | |
|---------------------------------|---|
| Skin and Body Protection | Wear protective gloves and protective clothing. Long sleeved clothing. Chemical resistant apron. Impervious gloves. |
| Respiratory Protection | No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required. |
| Hygiene Measures | Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. For environmental protection, remove and wash all contaminated protective equipment before re-use. Do not breathe dust. |

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

| | | | |
|-----------------------|--------------------------|-----------------------|--------------------------|
| Physical State | Solid | Odor | Neutral |
| Appearance | Black | Odor Threshold | No information available |
| Color | No information available | | |

| <u>Property</u> | <u>Values</u> | <u>Remarks</u> | <u>Method</u> |
|--|---------------------|----------------|---------------|
| pH | No data available | None known | |
| Melting / freezing point | No data available | None known | |
| Boiling point / boiling range | No data available | None known | |
| Flash Point | No data available | None known | |
| Evaporation Rate | No data available | None known | |
| Flammability (solid, gas) | No data available | None known | |
| Flammability Limit in Air | | | |
| Upper flammability limit | No data available | | |
| Lower flammability limit | No data available | | |
| Vapor pressure | No data available | None known | |
| Vapor density | No data available | None known | |
| Specific Gravity | No data available | None known | |
| Water Solubility | Immiscible in water | None known | |
| Solubility in other solvents | No data available | None known | |
| Partition coefficient: n-octanol/water | No data available | None known | |
| Autoignition temperature | No data available | None known | |
| Decomposition temperature | No data available | None known | |
| Kinematic viscosity | No data available | None known | |
| Dynamic viscosity | No data available | None known | |
| Explosive properties | No data available | | |
| Oxidizing Properties | No data available | | |

Other Information

| | |
|----------------------------|-------------------|
| Softening Point | No data available |
| VOC Content (%) | No data available |
| Particle Size | No data available |
| Particle Size Distribution | |

10. STABILITY AND REACTIVITY

Reactivity

No data available.

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Hazardous Polymerization

Hazardous polymerization does not occur.

Conditions to avoid

Exposure to air or moisture over prolonged periods. Excessive heat.

Incompatible materials

Acids. Bases. Oxidizing agent.

Hazardous Decomposition Products

Carbon oxides.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Product does not present an acute toxicity hazard based on known or supplied information. In case of rupture:.

Inhalation

Specific test data for the substance or mixture is not available. Corrosive by inhalation. (based on components). Inhalation of corrosive fumes/gases may cause coughing, choking, headache, dizziness, and weakness for several hours. Pulmonary edema may occur with tightness in the chest, shortness of breath, bluish skin, decreased blood pressure, and increased heart rate. Inhaled corrosive substances can lead to a toxic edema of the lungs. Pulmonary edema can be fatal. May cause irritation of respiratory tract. May be fatal if inhaled.

Eye Contact

Specific test data for the substance or mixture is not available. Causes burns. (based on components). Corrosive to the eyes and may cause severe damage including blindness. Causes serious eye damage. May cause irreversible damage to eyes.

Skin Contact

Specific test data for the substance or mixture is not available. Corrosive. (based on components). Causes burns.

Ingestion

Specific test data for the substance or mixture is not available. Causes burns. (based on components). Ingestion causes burns of the upper digestive and respiratory tracts. May cause severe burning pain in the mouth and stomach with vomiting and diarrhea of dark blood. Blood pressure may decrease. Brownish or yellowish stains may be seen around the mouth. Swelling of the throat may cause shortness of breath and choking. May cause lung damage if swallowed. May be fatal if swallowed and enters airways. Ingestion may cause irritation to mucous membranes. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. May be harmful if swallowed.

Component Information



| Chemical Name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|----------------------------|----------------------|-------------|-------------------------------------|
| Sulfuric acid 7664-93-9 | = 2140 mg/kg (Rat) | - | = 510 mg/m ³ (Rat) 2 h |

Information on toxicological effects

Symptoms Erythema (skin redness). Burning. May cause blindness. Coughing and/ or wheezing. Difficulty in breathing.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization No information available.

Mutagenic Effects No information available.

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

| Chemical Name | ACGIH | IARC | NTP | OSHA |
|----------------------------|-------|----------|------------------------|------|
| Lead 7439-92-1 | A3 | Group 2A | Reasonably Anticipated | X |
| Sulfuric acid 7664-93-9 | A2 | Group 1 | Known | X |
| Arsenic 7440-38-2 | A1 | Group 1 | Known | X |

ACGIH (American Conference of Governmental Industrial Hygienists)
 A2 - Suspected Human Carcinogen
 A3 - Animal Carcinogen
 IARC (International Agency for Research on Cancer)
 Group 1 - Carcinogenic to Humans
 Group 2A - Probably Carcinogenic to Humans
 Group 3 - Not Classifiable as to Carcinogenicity in Humans
 NTP (National Toxicology Program)
 Known - Known Carcinogen
 Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen
 OSHA (Occupational Safety and Health Administration of the US Department of Labor)
 X - Present

Reproductive Toxicity Product is or contains a chemical which is a known or suspected reproductive hazard. Contains a known or suspected reproductive toxin.

Developmental Toxicity Contains ingredients that have suspected developmental hazards.
STOT - single exposure No information available.

STOT - repeated exposure Causes damage to organs through prolonged or repeated exposure. Based on classification criteria from the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200), this product has been determined to cause systemic target organ toxicity from chronic or repeated exposure. (STOT RE).

Chronic Toxicity No known effect based on information supplied. Chronic exposure to corrosive fumes/gases may cause erosion of the teeth followed by jaw necrosis. Bronchial irritation with chronic cough and frequent attacks of pneumonia are common. Gastrointestinal disturbances may also be seen. Effects from this product caused by acute exposure may cause permanent damage to target organs and/or may cause chronic conditions. Contains a known or suspected carcinogen. Contains a known or suspected reproductive toxin. Possible risk of irreversible effects. Avoid repeated exposure. Prolonged exposure may cause chronic effects. May cause adverse effects on the bone marrow and blood-forming system. Lead compounds may be absorbed by ingestion, by inhalation and through the skin. Lead may damage kidney function, the blood forming system and the reproductive system.



Target Organ Effects

Respiratory system. Eyes. Skin. Gastrointestinal tract (GI). Systemic Toxicity. Reproductive System. Blood. Central Nervous System (CNS). Central Vascular System (CVS). Gingival Tissue. Kidney. Teeth. Cardiovascular system. Hematopoietic system. Immune system. May damage the unborn child.

Aspiration Hazard

No information available.

Numerical measures of toxicity Product Information

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)

593.00 mg/kg

ATEmix (inhalation-gas)

6,081.00 ppm (4 hr)

ATEmix (inhalation-dust/mist)

0.45 mg/l

ATEmix (inhalation-vapor)

15.00 ATEmix

12. ECOLOGICAL INFORMATION

Ecotoxicity

Very toxic to aquatic life with long lasting effects.

| Chemical Name | Toxicity to Algae | Toxicity to Fish | Toxicity to Microorganisms | Daphnia Magna (Water Flea) |
|----------------------------|-------------------|--|----------------------------|----------------------------|
| Lead 7439-92-1 | | 96h LC50: = 0.44 mg/L (Cyprinus carpio) 96h LC50: = 1.17 mg/L (Oncorhynchus mykiss) 96h LC50: = 1.32 mg/L (Oncorhynchus mykiss) | | 48h EC50: = 600 µg/L |
| Sulfuric acid 7664-93-9 | | 96h LC50: > 500 mg/L (Brachydanio rerio) | | 24h EC50: = 29 mg/L |

Persistence and Degradability

No information available.

Bioaccumulation

No information available

Other adverse effects

No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal methods This material, as supplied, is a hazardous waste according to federal regulations (40 CFR 261).

Contaminated Packaging Dispose of contents/containers in accordance with local regulations.

US EPA Waste Number D002 D004 D008

| Chemical Name | RCRA | RCRA - Basis for Listing | RCRA - D Series Wastes | RCRA - U Series Wastes |
|-----------------------|---|---|-----------------------------|------------------------|
| Lead 7439-92-1 | (hazardous constituent - no waste number) | Included in waste streams: F035, F037, F038, F039, K002, K003, K005, K046, K048, K049, K051, K052, K061, K062, K064, K065, K066, K069, K086, K100, K176 | = 5.0 mg/L regulatory level | |
| Antimony 7440-36-0 | | Included in waste streams: F039, K021, K161, K177 | | |
| Arsenic 7440-38-2 | | Included in waste streams: F032, F034, F035, F039, K031, K060, K084, K101, K102, K161, K171, K172, K176 | 5.0 mg/L regulatory level | |

| Chemical Name | RCRA - Halogenated Organic Compounds | RCRA - P Series Wastes | RCRA - F Series Wastes | RCRA - K Series Wastes |
|-----------------------|--------------------------------------|------------------------|------------------------|---|
| Antimony 7440-36-0 | | | | Toxic waste waste number K021 Waste description: Aqueous spent antimony catalyst waste from fluoromethanes production. |

California Hazardous Waste Codes 792

This product contains one or more substances that are listed with the State of California as a hazardous waste.

| Chemical Name | California Hazardous Waste |
|----------------------------|----------------------------|
| Lead 7439-92-1 | Toxic |
| Sulfuric acid 7664-93-9 | Toxic Corrosive |
| Antimony 7440-36-0 | Toxic |

14. TRANSPORT INFORMATION

DOT NOT REGULATED
Proper Shipping Name NON REGULATED
Hazard Class N/A

TDG Not regulated
Marine Pollutant This product contains a chemical which is listed as a marine pollutant according to TDG.

MEX Not regulated

ICAO Not regulated



| | |
|-----------------------------|--|
| IATA | Not regulated |
| Proper Shipping Name | NON REGULATED |
| Hazard Class | N/A |
| IMDG/IMO | Not regulated |
| Hazard Class | N/A |
| Marine Pollutant | This product contains a chemical which is listed as a marine pollutant according to IMDG/IMO |
| RID | Not regulated |
| ADR | Not regulated |
| ADN | Not regulated |

15. REGULATORY INFORMATION

International Inventories

| | |
|------|--|
| TSCA | Complies |
| DSL | All components are listed either on the DSL or NDSL. |

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
 DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

| Chemical Name | CAS No | Weight-% | SARA 313 - Threshold Values % |
|---------------------------|-----------|----------|-------------------------------|
| Lead - 7439-92-1 | 7439-92-1 | 60 - 100 | 0.1 |
| Sulfuric acid - 7664-93-9 | 7664-93-9 | 30 - 60 | 1.0 |
| Antimony - 7440-36-0 | 7440-36-0 | 1 - 5 | 1.0 |
| Arsenic - 7440-38-2 | 7440-38-2 | < 0.1 | 0.1 |

SARA 311/312 Hazard Categories

| | |
|--|----|
| Acute Health Hazard | No |
| Chronic Health Hazard | No |
| Fire Hazard | No |
| Sudden release of pressure hazard | No |
| Reactive Hazard | No |

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

| Chemical Name | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants | CWA - Hazardous Substances |
|----------------------------|-----------------------------|------------------------|---------------------------|----------------------------|
| Lead 7439-92-1 | | X | X | |
| Sulfuric acid 7664-93-9 | 1000 lb | | | X |
| Antimony 7440-36-0 | | X | X | |
| Arsenic 7440-38-2 | | X | X | |



CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

| Chemical Name | Hazardous Substances RQs | Extremely Hazardous Substances RQs | RQ |
|----------------------------|--------------------------|------------------------------------|--|
| Lead 7439-92-1 | 10 lb | | RQ 10 lb final RQ RQ 4.54 kg final RQ |
| Sulfuric acid 7664-93-9 | 1000 lb | 1000 lb | RQ 1000 lb final RQ RQ 454 kg final RQ |
| Antimony 7440-36-0 | 5000 lb | | RQ 5000 lb final RQ RQ 2270 kg final RQ |
| Arsenic 7440-38-2 | 1 lb | | RQ 1 lb final RQ RQ 0.454 kg final RQ |

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals.

| Chemical Name | California Proposition 65 |
|---------------------------|---|
| Lead - 7439-92-1 | Carcinogen Developmental Female Reproductive Male Reproductive |
| Sulfuric acid - 7664-93-9 | Carcinogen |
| Arsenic - 7440-38-2 | Carcinogen |

U.S. State Right-to-Know Regulations

| Chemical Name | New Jersey | Massachusetts | Pennsylvania | Rhode Island | Illinois |
|----------------------------|------------|---------------|--------------|--------------|----------|
| Lead 7439-92-1 | X | X | X | X | X |
| Sulfuric acid 7664-93-9 | X | X | X | X | X |
| Antimony 7440-36-0 | X | X | X | X | X |
| Calcium 7440-70-2 | X | X | X | | |

International Regulations

Mexico

National occupational exposure limits

| Component | Carcinogen Status | Exposure Limits |
|--|-------------------|-------------------------------------|
| Lead 7439-92-1 (60 - 100) | A3 | Mexico: TWA= 0.15 mg/m ³ |
| Sulfuric acid 7664-93-9 (30 - 60) | A2 | Mexico: TWA 1 mg/m ³ |
| Antimony 7440-36-0 (1 - 5) | | Mexico: TWA 0.5 mg/m ³ |
| Arsenic 7440-38-2 (< 0.1) | A1 | Mexico: TWA 0.01 mg/m ³ |

Mexico - Occupational Exposure Limits - Carcinogens

A2 - Suspected Human Carcinogen

A3 - Confirmed Animal Carcinogen

Canada

WHMIS Hazard Class

Non-controlled



16. OTHER INFORMATION

| | | | | |
|-------------|-------------------------|-----------------------|--------------------------|---|
| NFPA | Health Hazards 4 | Flammability 0 | Instability 0 | Physical and Chemical Hazards - Personal Protection X |
| HMIS | Health Hazards 0 | Flammability 0 | Physical Hazard 0 | |

Prepared By Product Stewardship
 23 British American Blvd.
 Latham, NY 12110
 1-800-572-6501

Issuing Date 15-Feb-2011
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Revision Note No information available

Disclaimer

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

End of Safety Data Sheet



SAFETY DATA SHEET

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1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name Toro 4 Cycle Oil 10w30

Other means of identification

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended Use Engine (motor) oil for Auto or Boat

Uses advised against No information available

Details of the supplier of the safety data sheet

Supplier Name The Toro Company
Supplier Address 8111 Lyndale Avenue South
Bloomington
MN
8515
US
Supplier Phone Number Phone:952-887-8515
Contact Phone951-785-3482
Supplier Email eden.allen@toro.com
Emergency telephone number

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

| | |
|-----------------|-------------|
| Carcinogenicity | Category 1A |
|-----------------|-------------|

GHS Label elements, including precautionary statements

Emergency Overview

| | |
|-------------|--------|
| Signal word | Danger |
|-------------|--------|



Hazard Statements

May cause cancer

**Appearance** Clear, amber**Physical State** Liquid**Odor** Oily**Precautionary Statements - Prevention**

Obtain special instructions before use

Do not handle until all safety precautions have been read and understood

Use personal protective equipment as required

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Not applicable

Unknown Toxicity

0% of the mixture consists of ingredient(s) of unknown toxicity

Other information

Causes mild skin irritation

Interactions with Other Chemicals

No information available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name | CAS No | Weight-% | Trade Secret |
|---|------------|----------|--------------|
| Petroleum distillates, hydrotreated heavy paraffinic | 64742-54-7 | 60 - 100 | * |
| Sulfuric acid, nickel salt, reaction products with sulfurized calcium phenolate | 72162-32-4 | 1 - 5 | * |
| Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts | 68649-42-3 | 1 - 5 | * |

*The exact percentage (concentration) of composition has been withheld as a trade secret

4. FIRST AID MEASURES

First aid measures**General Advice**

Note: When using this product in high pressure equipment - Accidental high velocity dermal injection of this material requires immediate medical attention.

Eye Contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention immediately if symptoms occur.

Skin Contact

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

Inhalation

Remove to fresh air. Get medical attention immediately if symptoms occur.

Ingestion

Call a physician or poison control center immediately. Do NOT induce vomiting.

Most important symptoms and effects, both acute and delayed

Most Important Symptoms and Effects No information available.

Indication of any immediate medical attention and special treatment needed**Notes to Physician**

Treat symptomatically.

5. FIRE-FIGHTING MEASURES**Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media

CAUTION: Use of water spray when fighting fire may be inefficient.

Specific Hazards Arising from the Chemical

No information available.

Hazardous Combustion Products

Carbon oxides.

Explosion Data

Sensitivity to Mechanical Impact No.

Sensitivity to Static Discharge No.

Protective equipment and precautions for firefighters

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

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Use personal protective equipment as required.

Other Information Refer to protective measures listed in Sections 7 and 8.

Environmental Precautions

Environmental Precautions Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.

Methods and material for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Use personal protection equipment. Take precautionary measures against static discharges.

Conditions for safe storage, including any incompatibilities

Storage Keep in properly labeled containers. Keep containers tightly closed in a cool, well-ventilated place.

Incompatible Products Oxidizing agent.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

| Chemical Name | ACGIH TLV | OSHA PEL | NIOSH IDLH |
|---|---|--|---|
| Petroleum distillates, hydrotreated heavy paraffinic 64742-54-7 | TWA: 5 mg/m ³ , as oil mist, mineral STEL: TWA: 10 mg/m ³ , as oil mist, mineral | TWA: 5 mg/m ³ , as oil mist, mineral | |
| Sulfuric acid, nickel salt, reaction products with sulfurized calcium phenolate 72162-32-4 | - | TWA: 1 mg/m ³ Ni (vacated) TWA: 0.1 mg/m ³ Ni | IDLH: 10 mg/m ³ Ni TWA: 0.015 mg/m ³ except Nickel carbonyl Ni |

ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits Immediately Dangerous to Life or Health

Other Exposure Guidelines Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992) See section 15 for national exposure control parameters

Appropriate engineering controls

Engineering Measures Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/Face Protection Tight sealing safety goggles.

Skin and Body Protection Wear protective gloves and protective clothing.

Respiratory Protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

Hygiene Measures When using do not eat, drink or smoke.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

| | | | |
|-----------------------|--------------------------|-----------------------|--------------------------|
| Physical State | Liquid | Odor | Oily |
| Appearance | Clear, amber | Odor Threshold | No information available |
| Color | No information available | | |

| <u>Property</u> | <u>Values</u> | <u>Remarks</u> | <u>Method</u> |
|---|--------------------|----------------|---------------|
| pH | UNKNOWN | None known | |
| Melting / freezing point | No data available | None known | |
| Boiling point / boiling range | No data available | None known | |
| Flash Point | No data available | None known | |
| Evaporation Rate | No data available | None known | |
| Flammability (solid, gas) | No data available | None known | |
| Flammability Limit in Air | | | |
| Upper flammability limit | No data available | | |
| Lower flammability limit | No data available | | |
| Vapor pressure | No data available | None known | |
| Vapor density | No data available | None known | |
| Specific Gravity | No data available | None known | |
| Water Solubility | Insoluble in water | None known | |
| Solubility in other solvents | No data available | None known | |
| Partition coefficient: n-octanol/water | No data available | None known | |
| Autoignition temperature | No data available | None known | |
| Decomposition temperature | No data available | None known | |
| Kinematic viscosity | No data available | None known | |
| Dynamic viscosity | No data available | None known | |
| Explosive properties | No data available | | |
| Oxidizing Properties | No data available | | |

Other Information

| | |
|------------------------|-------------------|
| Softening Point | No data available |
| VOC Content (%) | No data available |
| Particle Size | No data available |



Particle Size Distribution**10. STABILITY AND REACTIVITY****Reactivity**

No data available.

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Hazardous Polymerization

Hazardous polymerization does not occur.

Conditions to avoid

Keep away from open flames, hot surfaces and sources of ignition.

Incompatible materials

Oxidizing agent.

Hazardous Decomposition Products

Carbon oxides.

11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure****Product Information**

| | |
|---------------------|---|
| Inhalation | Specific test data for the substance or mixture is not available. |
| Eye Contact | Specific test data for the substance or mixture is not available. |
| Skin Contact | Specific test data for the substance or mixture is not available. |
| Ingestion | Specific test data for the substance or mixture is not available. |

Component Information**Information on toxicological effects**

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization No information available.

Mutagenic Effects No information available.

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

| Chemical Name | ACGIH | IARC | NTP | OSHA |
|---|-------|---------|-------|------|
| Petroleum distillates, hydrotreated heavy paraffinic 64742-54-7 | A2 | Group 1 | | X |
| Sulfuric acid, nickel salt, reaction products with sulfurized calcium phenolate 72162-32-4 | | Group 1 | Known | X |

ACGIH (American Conference of Governmental Industrial Hygienists)

A2 - Suspected Human Carcinogen

IARC (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

NTP (National Toxicology Program)

Known - Known Carcinogen

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

| | |
|---------------------------------|---|
| Reproductive Toxicity | No information available. |
| STOT - single exposure | No information available. |
| STOT - repeated exposure | No information available. |
| Chronic Toxicity | Contains a known or suspected carcinogen. |
| Target Organ Effects | Skin. |
| Aspiration Hazard | No information available. |

Numerical measures of toxicity Product Information

The following values are calculated based on chapter 3.1 of the GHS document

Not applicable

12. ECOLOGICAL INFORMATION

Ecotoxicity

The environmental impact of this product has not been fully investigated.

| Chemical Name | Toxicity to Algae | Toxicity to Fish | Toxicity to Microorganisms | Daphnia Magna (Water Flea) |
|---|-------------------|--|----------------------------|----------------------------|
| Petroleum distillates, hydrotreated heavy paraffinic 64742-54-7 | | 96h LC50: > 5000 mg/L (Oncorhynchus mykiss) | | 48h EC50: > 1000 mg/L |
| Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts 68649-42-3 | | 96h LC50: 1.0 - 5.0 mg/L (Pimephales promelas) 96h LC50: 10.0 - 35.0 mg/L (Pimephales promelas) | | 48h EC50: 1 - 1.5 mg/L |

Persistence and Degradability

No information available.

Bioaccumulation

No information available

Other adverse effects

No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal methods

This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

Contaminated Packaging

Dispose of contents/containers in accordance with local regulations.

California Hazardous Waste Codes 221

This product contains one or more substances that are listed with the State of California as a hazardous waste.

| Chemical Name | California Hazardous Waste |
|---|----------------------------|
| Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts 68649-42-3 | Toxic |

14. TRANSPORT INFORMATION

DOT
Proper Shipping Name NOT REGULATED
Hazard Class NON REGULATED
 N/A

TDG Not regulated

MEX Not regulated

ICAO Not regulated

IATA
Proper Shipping Name Not regulated
Hazard Class NON REGULATED
 N/A

IMDG/IMO
Hazard Class Not regulated
 N/A

RID Not regulated

ADR Not regulated

ADN Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA Complies
DSL All components are listed either on the DSL or NDSL.

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List



US Federal Regulations**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

| Chemical Name | CAS No | Weight-% | SARA 313 - Threshold Values % |
|--|------------|----------|-------------------------------|
| Sulfuric acid, nickel salt, reaction products with sulfurized calcium phenolate - 72162-32-4 | 72162-32-4 | 1 - 5 | 0.1 |
| Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts - 68649-42-3 | 68649-42-3 | 1 - 5 | 1.0 |

SARA 311/312 Hazard Categories

| | |
|-----------------------------------|-----|
| Acute Health Hazard | No |
| Chronic Health Hazard | Yes |
| Fire Hazard | No |
| Sudden release of pressure hazard | No |
| Reactive Hazard | No |

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

| Chemical Name | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants | CWA - Hazardous Substances |
|---|-----------------------------|------------------------|---------------------------|----------------------------|
| Sulfuric acid, nickel salt, reaction products with sulfurized calcium phenolate 72162-32-4 | | X | | |
| Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts 68649-42-3 | | X | | |

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations**California Proposition 65**

This product contains the following Proposition 65 chemicals.

| Chemical Name | California Proposition 65 |
|--|---------------------------|
| Sulfuric acid, nickel salt, reaction products with sulfurized calcium phenolate - 72162-32-4 | Carcinogen |

U.S. State Right-to-Know Regulations

| Chemical Name | New Jersey | Massachusetts | Pennsylvania | Rhode Island | Illinois |
|---|------------|---------------|--------------|--------------|----------|
| phosphorodithioic acid O,O-dialkyl(C=1-14) esters zinc salts 68649-42-3 | | | | X | |
| Sulfuric acid, nickel salt, reaction products with sulfurized calcium phenolate 72162-32-4 | | | X | X | X |

International Regulations**Mexico**

National occupational exposure limits

| Component | Carcinogen Status | Exposure Limits |
|---|-------------------|---|
| Sulfuric acid, nickel salt, reaction products with sulfurized calcium phenolate 72162-32-4 (1 - 5) | | Mexico: TWA 0.1 mg/m ³ Mexico: STEL 0.3 mg/m ³ |

Mexico - Occupational Exposure Limits - Carcinogens

Canada**WHMIS Hazard Class**

D2A - Very toxic materials



16. OTHER INFORMATION

| | | | | |
|-------------|--------------------------|-----------------------|--------------------------|---|
| NFPA | Health Hazards 1 | Flammability 0 | Instability 0 | Physical and Chemical Hazards - Personal Protection X |
| HMIS | Health Hazards 1* | Flammability 0 | Physical Hazard 0 | |

Chronic Hazard Star Legend * = Chronic Health Hazard

| | |
|----------------------|--|
| Prepared By | Product Stewardship 23 British American Blvd. Latham, NY 12110 1-800-572-6501 |
| Issuing Date | 16-Mar-2015 |
| Revision Date | 16-Mar-2015 |
| Revision Note | No information available |

Disclaimer

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

End of Safety Data Sheet