

# **CITGO Trukut® 230 Material Safety Data Sheet**

**CITGO Petroleum Corporation** P.O. Box 4689 Houston, TX 77210

Green.

MSDS No.

639231001

**Revision Date** 

11/3/2008

IMPORTANT: This MSDS is prepared in accordance with 29 CFR 1910.1200. Read this MSDS before transporting, handling, storing or disposing of this product and forward this information to employees, customers and users of this product.

# **Emergency Overview**

Physical State Liquid.

Color

Odor Mild petroleum odor

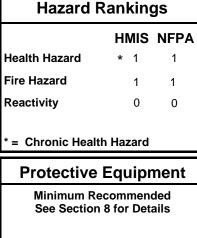
CAUTION Can cause eye, skin or respiratory tract irritation. Avoid breathing vapor or mist. Avoid contact with eyes, skin or clothing. Keep container closed. Use only with adequate ventilation. Wash contaminated skin thoroughly with water or saline. Harmful to aquatic organisms.

# SECTION 1. PRODUCT IDENTIFICATION

Trade Name	CITGO Trukut® 230	Technical Contact	(800) 248-4684
Product Number	639231001	Medical Emergency	(832) 486-4700
CAS Number	Mixture.	CHEMTREC Emergency (United States Only)	(800) 424-9300
Product Family	Metalworking fluid		
Synonyms	Metalworking fluid; CITGO <sup>®</sup> Material Code: 639231001		

# **SECTION 2. COMPOSITION**

Component Name(s)	CAS Registry No.	Concentration (%)
Highly-refined petroleum lubricant oils	64742-52-5	30 - 60
Paraffin waxes and hydrocarbon waxes, chloro (medium chain C14-17)	63449-39-8	7 - 13
Carboxylic acid, polymerized	Proprietary	5 - 10
Sulfonic acids, petroleum, sodium salts	68608-26-4	1 - 5
Fatty acids, tall-oil, compds. with 2-amino-2-methyl-1-propanol	67701-21-7	1 - 5
Carboxylic acids, potassium salt	Proprietary	1 - 5
Alcohols, C12-C14, alkoxylated	Proprietary	1 - 5
Dipropylene glycol methyl ether	34590-94-8	1 - 5
Boric acid (H3BO3), compd. with 2-aminoethanol	26038-87-9	1 - 5
2,2',2"-(Hexahydro-1,3,5-triazine-1,3,5-triyl) triethanol	4719-04-4	1 - 5





# **SECTION 3. HAZARDS IDENTIFICATION**

### Also see Emergency Overview and Hazard Ratings on the top of Page 1 of this MSDS.

Major Route(s) of Entry Skin contact. Eye contact. Inhalation.

#### Signs and Symptoms of Acute Exposure

Inhalation Product mist can irritate the mucous membranes of the nose, the throat, bronchi, and lungs.

**Eye Contact** This product can cause eye irritation with short-term contact with liquid, mists or vapor. Symptoms include stinging, watering, redness, and swelling.

- Skin ContactThis material can cause skin irritation. The severity of irritation will depend on the amount of<br/>material that is applied to the skin and the speed and thoroughness that it is removed.<br/>Symptoms include redness, itching, and burning of the skin. Repeated or prolonged skin<br/>contact can produce moderate irritation (dermatitis).
- Ingestion If swallowed, large volumes of material can cause generalized depression, headache, drowsiness, nausea, vomiting and diarrhea. Smaller doses can cause a laxative effect. If aspirated into the lungs, liquid can cause lung damage.
- **Chronic Health Effects Summary** Prolonged or repeated skin contact can cause irritation and inflammation characterized by drying, or cracking skin (dermatitis). In addition, incidents of allergic contact dermatitis have been reported from exposure to some used metal working fluids. Repeated exposure to metalworking fluid mists at concentrations above applicable workplace exposure levels have been associated with respiratory irritation or other pulmonary effects. Exposure to microbial contaminants found in certain used metalworking fluids have been associated with asthma and a lung inflammation condition known as hypersensitivity pneumonitis. Symptoms are similar to pneumonia including headache, cough and chest pain. Repeated occurrences of acute hypersensitivity pneumonitis can result in irreversible lung damage.

# Conditions Aggravated<br/>by ExposureDisorders of the following organs or organ systems that may be aggravated by significant<br/>exposure to this material or its components include: Skin, Respiratory System

Target OrgansMay cause damage to the following organs: upper respiratory tract, skin, eye, lens or cornea.

**Carcinogenic Potential** This product is not known to contain any components at concentrations above 0.1% which are considered carcinogenic by OSHA, IARC or NTP.

OSHA Hazard Classification is indicated by an "X" in the box adjacent to the hazard title. If no "X" is present, the product does not exhibit the hazard as defined in the OSHA Hazard Communication Standard (29 CFR 1910.1200).

OSHA Health Hazard Classification		OSHA Physical Hazard Classification					
Irritant X Toxic Corrosive	Sensitizer   Highly Toxic   Carcinogenic	Combustible Flammable Compressed Gas		Explosive Oxidizer Organic Peroxide		Pyrophoric Water-reactive Unstable	

## **SECTION 4. FIRST AID MEASURES**

Take proper precautions to ensure your own health and safety before attempting rescue or providing first aid. For more specific information, refer to Exposure Controls and Personal Protection in Section 8 of this MSDS.

Inhalation Move victim to fresh air. If victim is not breathing, immediately begin rescue breathing. If breathing is difficult, 100 percent humidified oxygen should be administered by a qualified individual. Seek medical attention immediately. Keep the affected individual warm and at rest.

Eye Contact	Check for and remove contact lenses. Flush eyes with cool, clean, low-pressure water while occasionally lifting and lowering eyelids. Seek medical attention if excessive tearing, redness, or pain persists.
Skin Contact	If burned by hot material, cool skin by quenching with large amounts of cool water. For contact with product at ambient temperatures, remove contaminated shoes and clothing. Wipe off excess material. Wash exposed skin with mild soap and water. Seek medical attention if tissue appears damaged or if pain or irritation persists. Thoroughly clean contaminated clothing before reuse. Clean or discard contaminated leather goods. If material is injected under the skin, seek medical attention immediately.
Ingestion	Do not induce vomiting unless directed to by a physician. Do not give anything to drink unless directed to by a physician. Never give anything by mouth to a person who is not fully conscious. If significant amounts are swallowed or irritation or discomfort occurs, seek medical attention immediately.
Notes to Physician	INGESTION: The viscosity range of the product(s) represented by this MSDS is greater than 100 SUS at 100°F. Careful gastric lavage may be considered to evacuate large quantities of material.

## **SECTION 5. FIRE FIGHTING MEASURES**

NFPA Flammability Classification	NFPA Class-IIIB combustible material.		
Flash Point	Open cup: 155°C (311°F) (Clev	eland.).	
Lower Flammable Limit	No data.	Upper Flammable Limit	No data.
Autoignition Temperature	Not available.		
Hazardous Combustion Products	Carbon dioxide, carbon monoxid sulfur and/or nitrogen. Also, dep hydrogen sulfide can be release gas can evolve at elevated temp	pending upon the conditions d. Low concentrations conce	of use, low concentrations of entrations of entrations of hydrogen chloride
Special Properties	This material will release vapors ignite when exposed to a source explosive force. Mists or sprays	e of ignition. In enclosed spa	ces, vapors can ignite with
Extinguishing Media	Use dry chemical, foam, carbon Carbon dioxide and inert gas ca dioxide or inert gas in confined s	n displace oxygen. Use caut	
Protection of Fire Fighters	Firefighters must use full bunker self-contained breathing apparate decomposition products and oxy	tus to protect against potentia	

# SECTION 6. ACCIDENTAL RELEASE MEASURES

Take proper precautions to ensure your own health and safety before attempting spill control or clean-up. For more specific information, refer to the Emergency Overview on Page 1, Exposure Controls and Personal Protection in Section 8 and Disposal Considerations in Section 13 of this MSDS.

Do not touch damaged containers or spilled material unless wearing appropriate protective equipment. Slipping hazard; do not walk through spilled material. Stop leak if you can do so without risk. For small spills, absorb or cover with dry earth, sand, or other inert non-combustible absorbent material and place into waste containers for later disposal. Contain large spills to maximize product recovery or disposal. Prevent entry into waterways or sewers. In urban area, cleanup spill as soon as possible. In natural environments, seek cleanup advice from specialists to minimize physical habitat damage. This material is miscible in water. Comply with all laws and regulations.

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# SECTION 7. HANDLING AND STORAGE

Handling Carefully maintain metalworking fluid and associated equipment. Monitor metalworking fluid on a regular basis. Maintain product mist concentrations below applicable occupational exposure limits. Avoid contamination with tramp oil and other materials to minimize product degradation. Avoid exposing product to extreme temperatures. Replace used metalworking fluid if microbial growth is not manageable. Rancid or foul smelling used metalworking fluids may indicate uncontrolled microbial growth. Replace used metalworking fluid at the end of the useful service life. Carefully clean metalworking equipment and associated delivery systems prior to introducing new product. Product container is not designed for elevated pressure. Do not pressurize, cut, weld, braze solder, drill, or grind on containers. Do not expose product containers to flames, sparks, heat or other potential ignition sources. Empty containers may contain product residues that can ignite with explosive force. Keep container tightly closed. Store in a cool, dry, well-ventilated area. Store only in Storage approved containers. Do not store with strong oxidizing agents. Do not store at elevated temperatures. Avoid storing product in direct sunlight for extended periods of time. Storage area must meet OSHA requirements and applicable fire codes. Consult appropriate federal, state and local authorities before reusing, reconditioning, reclaiming, recycling or disposing of empty containers or waste residues of this product.

# SECTION 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

**Engineering Controls** Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of mists and/or vapors below the recommended exposure limits (see below). An eye wash station and safety shower should be located near the work-station.

**Personal Protective Equipment** Personal protective equipment should be selected based upon the conditions under which this material is used. A hazard assessment of the work area for PPE requirements should be conducted by a qualified professional pursuant to OSHA regulations. The following pictograms represent the minimum requirements for personal protective equipment. For certain operations, additional PPE may be required.



Eye Protection
Safety glasses equipped with side shields are recommended as minimum protection in industrial settings. Wear goggles if splashing or spraying is anticipated. Wear goggles and face shield if material is heated above 125°F (51°C). Have suitable eye wash water available.
Hand Protection
Avoid skin contact. Use gloves constructed of chemical resistant materials such as heavy nitrile rubber or appropriate barrier creams with prolonged or repeated contact. If the product is processed or handled at elevated temperature, protect against thermal burns by using heat-resistant (insulated) gloves. Do not wear gloves or loose fitting clothing around rotating or moving equipment. Use good personal hygiene practices.

**Body Protection** Use clean protective clothing if splashing or spraying conditions are present. Protective clothing may include long-sleeve outer garment, apron, or lab coat. If significant contact occurs, remove oil-contaminated clothing as soon as possible and promptly shower. Launder contaminated clothing before reuse or discard. Wear heat protective boots and protective clothing when handling material at elevated temperatures.

**Respiratory Protection** Use adequate ventilation. If elevated airborne concentrations above applicable workplace exposure levels are anticipated, a NIOSH-approved organic vapor respirator equipped with a dust/mist prefilter should be used. Protection factors vary depending upon the type of respirator used. Respirators should be used in accordance with OSHA requirements (29 CFR 1910.134).

**General Comments** Use good personal hygiene practices. Wash hands and other exposed skin areas with plenty of mild soap and water before eating, drinking, smoking, use of toilet facilities, or leaving work. DO NOT use gasoline, kerosene, solvents or harsh abrasives as skin cleaners. Since specific exposure standards/control limits have not been established for this product, the "Oil Mist, Mineral" exposure limits shown below are suggested as minimum control guidelines.

### **Occupational Exposure Guidelines**

Substance	Applicable Workplace Exposure Levels
Highly-refined petroleum lubricant oils	ACGIH (United States).
	TWA: 5 mg/m <sup>3</sup> 8 hour(s).
	STEL: 10 mg/m <sup>3</sup> 15 minute(s).
	OSHA (United States).
	TWA: 5 mg/m <sup>3</sup> 8 hour(s).
Metalworking Fluid, Soluble	NIOSH (United States).
-	TWA: 0.4 mg/m <sup>3</sup> 8 hour(s). Form: *Thoracic particulate mass

# SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES (TYPICAL)

Physical State	Liquid.	Color	Green.		Odor	Mild petroleum odor
Specific Gravity	97 (Water = 1)	рН	AP 10.1 at	5%	Vapor Density	>1 (Air = 1)
Boiling Range	Not available.			Melting/ Point	/Freezing	Not available.
Vapor Pressure	<0.1 kPa (<1 mm Hg)	(at 20°C)		Volatilit	У	Negligible volatility.
Solubility in Water	Partially soluble in col	d water.		Viscosi (cSt @ 4		42
Flash Point	Open cup: 155°C (31	1°F) (Cleve	eland.).			
Additional Properties	Gravity, ºAPI (ASTM I Density = 8.1 Lbs/gal.	,	4.4 @ 60º F			

# **SECTION 10. STABILITY AND REACTIVITY**

Chemical Stability	Stable.	Hazardous Polymerization Not expected to occur.	
Conditions to Avoid	Keep away from extreme he	eat, sparks, open flame, and strongly oxidizing conditions.	
Materials Incompatibility	Strong oxidizers.		
Hazardous Decomposition Products	No additional hazardous de products identified in Section	composition products were identified other than the combustion on 5 of this MSDS.	ı

## **SECTION 11. TOXICOLOGICAL INFORMATION**

For other health-related information, refer to the Emergency Overview on Page 1 and the Hazards Identification in Section 3 of this MSDS.

Toxicity Data

Highly-refined petroleum lubricant oils

ORAL (LD50): Acute: >5000 mg/kg [Rat]. DERMAL (LD50): Acute: >2000 mg/kg [Rabbit].

Mineral oil mists derived from highly refined oils are reported to have low acute and sub-acute toxicities in animals. Effects from single and short-term repeated exposures to high concentrations of mineral oil mists well above applicable workplace exposure levels include lung inflammatory reaction, lipoid granuloma formation and lipoid pneumonia. In acute and sub-acute studies involving exposures to lower concentrations of mineral oil mists at or near current work place exposure levels produced no significant toxicological effects. In long term studies (up to two years) no carcinogenic effects have been reported in any animal species tested.

### Paraffin waxes and hydrocarbon waxes, chloro (medium chain C14-17)

Three subchronic oral studies (five day, 14 day and 13 weeks) were conducted with rats using C15 52% chlorinated paraffin. No macroscopic lesions were noted during necropsy. Mild diffused hepatocellular hypertrophy were noted in livers of all animals in two high dose levels. No signs of overt toxicity were observed during the 13-week study. However, slightly reduced body weights were observed at the high dose level. Kidney and liver weights were increased at the middle and high dose groups Investigators observed mild hepatocyte hypertrophy at the higher dose levels. Also, an increase in thyroid hypertrophy and hyperplasia in male rats were noted in the high dose group. When fed to pregnant rats, C16 52% chlorinated paraffins were associated with pup death during weaning. C15 and C16, 52% chlorinated paraffins are not listed as carcinogenic by IARC, NTP or OSHA.

## Sulfonic acids, petroleum, sodium salts

ORAL (LD50): Acute: >6000 mg/kg [Rat].

Based on studies with laboratory animals, this material may cause mild skin irritation after repeated or prolonged contact. In addition, studies on laboratory animals have associated this material with eye irritation.

Fatty acids, tall-oil, compds. with 2-amino-2-methyl-1-propanol Irritating to eyes and skin.

Carboxylic acids, potassium salt

Irritating to eyes.

## Alcohols, C12-C14, alkoxylated

In studies with rabbits, sustained occluded skin contact of this component can cause inflammatory changes. This material can cause eye irritation with corneal injury. Liquid material entering the eye can cause clouding of the cornea.

#### Dipropylene glycol methyl ether

Observations in animals include minor liver or kidney effects. Signs and symptoms of excessive exposure can include anesthetic or narcotic effects.

### Boric acid (H3BO3), compd. with 2-aminoethanol

Irritating to eyes.

#### 2,2',2"-(Hexahydro-1,3,5-triazine-1,3,5-triyl) triethanol

Skin contact may produce an allergic response in sensitive individuals following repeated exposures.

#### Metalworking Fluid, Soluble

Acute and chronic respiratory responses have been reported in occupational exposures to

metal working fluids (MWF). In addition, exposure to MWF mists can aggravate existing respiratory conditions. Chronic effects of overexposure to MWF mists can include sinusitis, persistent cough, asthma, increased respiratory tract secretions and airway constriction. Certain studies have suggested that bacterial endotoxin in MWF can result in increased respiratory tract irritation among the exposed population. Endotoxins can stimulate alveolar macrophage release of cytokine mediators that are involved in broncho-constriction and inflammation.

Hypersensitivity pneumonitis (also known as allergic alveolitis) has been reported among automobile workers exposed to MWF. Hypersensitivity pneumonitis is a diffuse interstitial granulomatous lung disease believed to be associated with an immunologic reaction of the lung to repeated inhalation of foreign antigens. In the acute phase, signs and symptoms include alveolar inflammation and influenze-like symptoms. In the chronic phase and following repeated exposures, it is characterized by pulmonary fibrosis. Reoccurring episodes of acute hypersensitivity pneumonitis can lead to progressive, irreversible lung impairment.

# SECTION 12. ECOLOGICAL INFORMATION

**Ecotoxicity** Ecological effects testing has not been conducted on this product. A biocide has been added for protection against microbial growth. Product released to the environment can be hazardous to plants, animals or aquatic life.

**Environmental Fate** This product is miscible in water and is expected to readily disperse in marine environments.

# SECTION 13. DISPOSAL CONSIDERATIONS

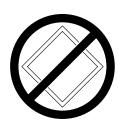
Hazard characteristic and regulatory waste stream classification can change with product use. Accordingly, it is the responsibility of the user to determine the proper storage, transportation, treatment and/or disposal methodologies for spent materials and residues at the time of disposition.

Conditions of use may cause this material to become a "hazardous waste", as defined by federal or state regulations. It is the responsibility of the user to determine if the material is a "hazardous waste" at the time of disposal. Transportation, treatment, storage, and disposal of waste material must be conducted in accordance with RCRA regulations (see 40 CFR 260 through 40 CFR 271). State and/or local regulations may be more restrictive. Contact your regional US EPA office for guidance concerning case specific disposal issues. Empty drums and pails retain residue. DO NOT pressurize, cut, weld, braze, solder, drill, grind, or expose this product's empty container to heat, flame, or other ignition sources. DO NOT attempt to clean it. Empty drums and pails should be drained completely, properly bunged or sealed, and promptly sent to a reconditioner.

# **SECTION 14. TRANSPORT INFORMATION**

The shipping description below may not represent requirements for all modes of transportation, shipping methods or locations outside of the United States.

US DOT Status	Not regulated by the U.S. Department of Transportation as a hazardous material.		
Proper Shipping Name	Not regulated.		
Hazard Class	Not regulated.	Packing Group	Not applicable.
		UN/NA Number	Not regulated.
Reportable Quantity Placard(s)	A Reportable Quantity (RQ) has not been established for this material.		



Emergency Response Guide No. Not applicable.

MARPOL III Status

Not a DOT "Marine Pollutant" per 49 CFR 171.8.

**Oil:** The product(s) represented by this MSDS is (are) regulated as "oil" under 49 CFR Part 130. Shipments by rail or highway in packaging having a capacity of 3500 gallons or more or in a quantity greater 42,000 gallons are subject to these requirements. In addition, mixtures containing 10% or more of this product may be subject to these requirements.

# **SECTION 15. REGULATORY INFORMATION**

TSCA Inventory	This product and/or its components are listed on the Toxic Substances Control Act (TSCA) inventory.
SARA 302/304 Emergency Planning and Notification	The Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires facilities subject to Subparts 302 and 304 to submit emergency planning and notification information based on Threshold Planning Quantities (TPQs) and Reportable Quantities (RQs) for "Extremely Hazardous Substances" listed in 40 CFR 302.4 and 40 CFR 355. No components were identified.
SARA 311/312 Hazard Identification	The Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires facilities subject to this subpart to submit aggregate information on chemicals by "Hazard Category" as defined in 40 CFR 370.2. This material would be classified under the following hazard categories:
	Acute (Immediate) Health Hazard, Chronic (Delayed) Health Hazard
SARA 313 Toxic Chemical Notification and Release Reporting	This product contains the following components in concentrations above <i>de minimis</i> levels that are listed as toxic chemicals in 40 CFR Part 372 pursuant to the requirements of Section 313 of SARA: No components were identified.
CERCLA	The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) requires notification of the National Response Center concerning release of quantities of "hazardous substances" equal to or greater than the reportable quantities (RQ's) listed in 40 CFR 302.4. As defined by CERCLA, the term "hazardous substance" does not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically designated in 40 CFR 302.4. This product or refinery stream is not known to contain chemical substances subject to this statute. However, it is recommended that you contact state and local authorities to determine if there are any other reporting requirements in the event of a spill.
Clean Water Act (CWA)	This material is classified as an oil under Section 311 of the Clean Water Act (CWA) and the Oil Pollution Act of 1990 (OPA). Discharges or spills which produce a visible sheen on waters of the United States, their adjoining shorelines, or into conduits leading to surface waters must be reported to the EPA's National Response Center at (800) 424-8802.
California Proposition 65	This product is not known to contain any components for which the State of California has found to cause cancer, birth defects or other reproductive harm.
New Jersey Right-to-Know Label	For New Jersey R-T-K labeling requirements, refer to components listed in Section 2.
Additional Remarks	No additional regulatory remarks.

11/3/2008

## **SECTION 16. OTHER INFORMATION**

Refer to the top of F	Page 1 for the HMIS an	d NFPA Hazard Ratings for the	nis product.
<b>REVISION INFORMA</b>	TION		
Version Number	1.0		
Revision Date	11/3/2008		
ABBREVIATIONS			
AP: Approximately	EQ: Equal	>: Greater Than	<: Lo
NA: Not Applicable	ND: No Data	NE: Not Established	
ACGIH: American Confere	ence of Governmental Industria	l Hygienists	
AIHA: American Industrial H	Hygiene Association		
IARC: International Agency	y for Research on Cancer		
NIOSH: National Institute of	of Occupational Safety and Hea	alth	
NPCA: National Paint and	Coating Manufacturers Associ	ation	
EPA: US Environmental Pr	rotection Agency		
HMIS: Hazardous Material	s Information System		
OSHA: Occupational Safet	ty and Health Administration		
NTP: National Toxicology I	Program		
NFPA: National Fire Protect	ction Association		

<: Less Than

### **DISCLAIMER OF LIABILITY**

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\*\*\*\*\* END OF MSDS \*\*\*\*\*