SAFETY DATA SHEET

Section 1. Identification

GHS product identifier : CITGO CITGEAR® MGW-OGL

Synonyms : Industrial gear oil

Material uses : Gear oil

Code : 631056001

Relevant identified uses of the substance or mixture and uses advised against

Not applicable.

Supplier's details : CITGO Petroleum Corporation
P.O. Box 4689
Houston, TX 77210
sdsvend@citgo.com

Emergency telephone number (with hours of operation) : Technical Contact: (800) 248-4684
Medical Emergency: (832) 486-4700
CHEMTREC Emergency: (800) 424-9300
(United States Only)

Section 2. Hazards identification

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

Classification of the substance or mixture : SKIN IRRITATION - Category 2
EYE IRRITATION - Category 2A
SKIN SENSITIZATION - Category 1
CARCINOGENICITY - Category 1B
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
AQUATIC HAZARD (ACUTE) - Category 2
AQUATIC HAZARD (LONG-TERM) - Category 2

GHS label elements

Hazard pictograms :

Signal word : Danger

Hazard statements : Causes skin irritation.
May cause an allergic skin reaction.
Causes serious eye irritation.
May cause drowsiness or dizziness.
May cause cancer.
Toxic to aquatic life with long lasting effects.

Precautionary statements

General : Keep out of reach of children.

Prevention : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing and eye or face protection. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Do not get in eyes, on skin, or on clothing. Avoid breathing vapor. Wash thoroughly after handling.

Section 2. Hazards identification

Response : Collect spillage. IF exposed or concerned: Get medical advice or attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell. Take off contaminated clothing and wash it before reuse. Wash contaminated clothing before reuse. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention.

Storage : Store in accordance with all local, regional, national and international regulations. Store locked up. Store in a well-ventilated place. Keep container tightly closed. Store in a dry place and a closed container. Empty containers may contain material residues which can ignite with explosive force. Misuse of empty containers can be dangerous if used to store toxic, flammable, or reactive materials. Cutting or welding of empty containers can cause fire, explosion, or release of toxic fumes from residues. Do not pressurize or expose empty containers to open flame, sparks, or heat. Keep container closed and drum bungs in place. All label warnings and precautions must be observed. Return empty drums to a qualified reconditioner. Consult appropriate federal, state and local authorities before reusing, reconditioning, reclaiming, recycling, or disposing of empty containers and/or waste residues of this material.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations. Don't Pollute. Conserve Resources. Return used oil to collection centers.

Hazards not otherwise classified : May contain or release poisonous hydrogen sulfide gas

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of identification : Industrial gear oil

CAS number/other identifiers

CAS number : Not applicable.

Ingredient name	%	CAS number
Asphalt (petroleum)	≥50 - ≤75	8052-42-4
C9-C15 Cycloalkanes	≥10 - ≤25	64742-47-8
Extracts (petroleum), heavy paraffinic distillate solvent	≤10	64742-04-7
C9-C15 Alkanes	≤10	64742-47-8
Benzene, ethenyl-, polymer with 1,3-butadiene	≤10	9003-55-8
Residual oils (petroleum), solvent-dewaxed	≤3	64742-62-7
carbon black	≤3	1333-86-4
Alkoxylated long chain alkyl amine	<3	***
zinc oxide	≤0.3	1314-13-2
Hydrogen sulfide	<0.1	7783-06-4

* = Various ** = Mixture *** = Proprietary

Any concentration shown as a range is to protect confidentiality or is due to process variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

Inhalation : 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 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.

Skin contact : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. If necessary, call a poison center or physician. 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/effects, acute and delayed

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.

Skin contact : Causes skin irritation. May cause an allergic skin reaction.

Ingestion : Can cause central nervous system (CNS) depression.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : Adverse symptoms may include the following:
headache
dizziness/vertigo
drowsiness/fatigue
nausea or vomiting
unconsciousness

Skin contact : Adverse symptoms may include the following:
irritation
redness

Ingestion : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat intoxications as hydrogen sulfide exposures.

Specific treatments : Treat symptomatically and supportively.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that gas or vapor is still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

Section 4. First aid measures

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

Specific hazards arising from the chemical : In a fire or if heated, a pressure increase will occur and the container may burst. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
sulfur oxides
phosphorus oxides
metal oxide/oxides

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container. This material may evolve hydrogen sulfide (H2S), a highly flammable and poisonous gas. Always check for hazardous vapors and take appropriate precautions.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Bulk Storage Conditions: Maintain all storage tanks in accordance with applicable regulations. Use necessary controls to monitor tank inventories. Inspect all storage tanks on a periodic basis. Test tanks and associated piping for tightness. Maintain the automatic leak detection devices to assure proper working condition.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Asphalt (petroleum)	**NIOSH REL (United States, 10/2020). [ASPHALT FUMES]** CEIL: 5 mg/m³ 15 minutes. Form: Fume **ACGIH TLV (United States, 1/2023). [Asphalt fumes as benzene soluble aerosol]** TWA: 0.5 mg/m³, (as benzene soluble aerosol) 8 hours. Form: Inhalable fraction **ACGIH TLV (United States).** TWA: 0.5 mg/m³ 8 hours.
C9-C15 Cycloalkanes	**ACGIH TLV (United States).** TWA: 400 ppm 8 hours. Form: Methylcyclohexane
Extracts (petroleum), heavy paraffinic distillate solvent	**ACGIH TLV (United States).** TWA: 5 mg/m³ 8 hours. **OSHA PEL Z2 (United States).** TWA: 5 mg/m³ 8 hours. **NIOSH REL (United States, 10/2020). [OIL MIST MINERAL]** TWA: 5 mg/m³ 10 hours. Form: Mist STEL: 10 mg/m³ 15 minutes. Form: Mist
C9-C15 Alkanes	**ACGIH TLV (United States).** TWA: 200 ppm, (as Nonane) 8 hours.
Residual oils (petroleum), solvent-dewaxed	**ACGIH TLV (United States, 1/2023). [Mineral Oil, pure, highly and severely**

Section 8. Exposure controls/personal protection

	refined] TWA: 5 mg/m³ 8 hours. Form: Inhalable fraction **OSHA PEL (United States, 5/2018). [Oil mist, mineral]** TWA: 5 mg/m³ 8 hours. **NIOSH REL (United States, 10/2020). [OIL MIST MINERAL]** TWA: 5 mg/m³ 10 hours. Form: Mist STEL: 10 mg/m³ 15 minutes. Form: Mist
carbon black	**NIOSH REL (United States, 10/2020).** TWA: 3.5 mg/m³ 10 hours. **OSHA PEL (United States, 5/2018).** TWA: 3.5 mg/m³ 8 hours. **ACGIH TLV (United States, 1/2023).** TWA: 3 mg/m³ 8 hours. Form: Inhalable fraction
zinc oxide	**NIOSH REL (United States, 10/2020).** CEIL: 15 mg/m³ Form: Dust TWA: 5 mg/m³ 10 hours. Form: Dust and fumes STEL: 10 mg/m³ 15 minutes. Form: Fume **OSHA PEL (United States, 5/2018).** TWA: 5 mg/m³ 8 hours. Form: Fume TWA: 5 mg/m³ 8 hours. Form: Respirable fraction TWA: 15 mg/m³ 8 hours. Form: Total dust **ACGIH TLV (United States).** TWA: 2 mg/m³ 8 hours. Form: Respirable STEL: 10 mg/m³ 15 minutes. Form: Respirable **ACGIH TLV (United States, 1/2023).** TWA: 2 mg/m³ 8 hours. Form: Respirable fraction STEL: 10 mg/m³ 15 minutes. Form: Respirable fraction **OSHA PEL (United States). Notes: Respirable** TWA: 5 mg/m³ 8 hours. Form: Respirable dust **OSHA PEL (United States). Notes: Total** TWA: 15 mg/m³ 8 hours. Form: Total dust
Hydrogen sulfide	**ACGIH TLV (United States, 1/2023).** TWA: 1 ppm 8 hours. STEL: 5 ppm 15 minutes. **OSHA PEL Z2 (United States, 2/2013).** CEIL: 20 ppm AMP: 50 ppm 10 minutes. **NIOSH REL (United States, 10/2020).** CEIL: 10 ppm 10 minutes. CEIL: 15 mg/m³ 10 minutes.

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, vapor controls, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Section 8. Exposure controls/personal protection

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety glasses equipped with side shields are recommended as minimum protection in industrial settings. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles. Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If inhalation hazards exist, a full-face respirator may be required instead.

Skin protection

Hand protection : Avoid skin contact with liquid. Chemical-resistant gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. Leather gloves are not protective for liquid contact.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection : Avoid skin contact with liquid. Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Leather boots are not protective for liquid contact.

Respiratory protection : Avoid inhalation of gases, vapors, mists or dusts. Use a properly fitted, air-purifying or supplied-air respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Recommend: A full-face supplied air pressure-demand respirator with escape bottle or a pressure-demand self-contained, breathing apparatus (SCBA) is required. Respirators should be used in accordance with OSHA requirements (29 CFR 1910.134).

Section 9. Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance

Physical state : Liquid. [Viscous liquid.]

Color : Black.

Odor : Petroleum.

pH : Not available.

Boiling point, initial boiling point, and boiling range : Not available.

Flash point : Open cup: 93.33°C (200°F) [Cleveland]

Evaporation rate : <1 (butyl acetate = 1)

Lower and upper explosive (flammable) limits : Not available.

Vapor pressure : <0.13 kPa (<1 mm Hg)

Relative vapor density : >1 [Air = 1]

Relative density : 0.93

Density lbs/gal : 7.86 lbs/gal

Density gm/cm^3 : Not available.

Gravity, °API : 20.2

Solubility : Insoluble in the following materials: cold water and hot water.

Auto-ignition temperature : Lowest known value: 250 to 410°C (482 to 770°F) (Extracts (petroleum), heavy paraffinic distillate solvent).

Viscosity : Kinematic (40°C (104°F)): 1200 mm^2/s (1200 cSt)

Viscosity SUS : Estimated 5559 SUS @104 F

Flow time (ISO 2431) : Not available.

Particle characteristics

Median particle size : Not applicable.

Section 10. Stability and reactivity

Reactivity : Not expected to be Explosive, Self-Reactive, Self-Heating, or an Organic Peroxide under US GHS Definition(s).

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : No specific data.

Incompatible materials : No specific data.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Asphalt (petroleum)	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
carbon black	LD50 Oral	Rat	>15400 mg/kg	-
Alkoxylated long chain alkyl amine	LD50 Oral	Rat	960 mg/kg	-
Hydrogen sulfide	LC50 Inhalation Gas.	Rat	444 ppm	4 hours

Conclusion/Summary : **Asphalt**: Asphalt fumes have been associated with eye, skin and respiratory tract irritation.
C9-C15 Alkanes: In animal studies utilizing mineral spirits containing up to 22% aromatics indicated that the acute central nervous system effects are reversible. Based on existing animal studies, the potential for persistent effects is not clear.
carbon black:
Two different carbon black products were tested in two inhalation studies in female rats and in one study using rats of each sex. Significant increases in the incidence of malignant lung tumors and the incidence of benign and malignant lung tumors combined were observed in female rats in all three studies. In addition, increased incidences of lesions described as benign cyctic keratinizing squamous-cell tumors or squamous cysts were observed.

IARC has determined that there is inadequate evidence in humans for the carcinogenicity of carbon black. However, IARC has determined that there is sufficient evidence in experimental animals for the carcinogenicity of carbon black. Accordingly, IARC has carbon black is possibly carcinogenic to humans (Group 2B).
Alkoxylated long chain alkyl amine: This material is severely irritating and corrosive to the skin. This component can cause an allergic reaction.

Section 11. Toxicological information

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Benzene, ethenyl-, polymer with 1,3-butadiene	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
zinc oxide	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-

Skin : **C9-C15 Alkanes**: Primary dermal irritation studies (four hour exposure) in rabbits utilizing mineral spirits containing less than 2% aromatics resulted in slight to moderate skin irritation. In humans, mineral spirits have produced slight to moderate skin irritation particularly with evaporation from the skin is prevented.

Eyes : No additional information.

Respiratory : **C9-C15 Alkanes**: Animal studies have demonstrated that mineral spirits produced mild respiratory tract irritation at elevated concentrations. Also, sensory respiratory tract irritation was evident by reduced breathing rates in the test animals in certain studies.

Sensitization

Not available.

Skin : **C9-C15 Alkanes**: In animal studies utilizing mineral spirits containing up to 18%, aromatics skin sensitization is not evident.

Respiratory : No additional information.

Mutagenicity

Not available.

Conclusion/Summary : **C9-C15 Alkanes**: In vivo and in vitro studies on mineral spirits containing up to 22 % aromatics indicate that these products are not genotoxic.

Carcinogenicity

Not available.

Conclusion/Summary : **C9-C15 Alkanes**: The National Toxicology Program (NTP) conducted two-year carcinogenicity studies in rats and mice with Stoddard Solvent IIC (less than 2% aromatics). The studies indicated that there was some evidence of carcinogenic activity in male rats (adrenal medulla neoplasms and renal tubule adenoma) but no evidence of carcinogenic activity in female rats. Further, there was equivocal evidence of carcinogenic activity in female mice (hepatocellular adenoma) but no evidence of carcinogenic activity in male mice. A low carcinogenic potential is suggested by a lack of genotoxic potential identified in in vivo and in vitro genetic toxicity tests (with and without metabolic activation).

Classification

Product/ingredient name	OSHA	IARC	NTP
Asphalt (petroleum)	-	2B	-
Benzene, ethenyl-, polymer with 1,3-butadiene	-	3	-
carbon black	-	2B	-

Reproductive toxicity

Not available.

Conclusion/Summary : **C9-C15 Alkanes**: There were no treatment-related effects on pregnancy rate, mortality or gross post mortem observations in animal studies utilizing mineral spirits containing less than 2% aromatics.

Teratogenicity

Not available.

Conclusion/Summary : **C9-C15 Alkanes**: There were no treatment-related effects on pregnancy rate, mortality or gross post mortem observations in animal studies utilizing mineral spirits containing less than 2% aromatics.

Section 11. Toxicological information

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
C9-C15 Cycloalkanes	Category 3	-	Narcotic effects
C9-C15 Alkanes	Category 3	-	Narcotic effects
Hydrogen sulfide	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Name	Result
C9-C15 Cycloalkanes	ASPIRATION HAZARD - Category 1
C9-C15 Alkanes	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure : Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.

Skin contact : Causes skin irritation. May cause an allergic skin reaction.

Ingestion : Can cause central nervous system (CNS) depression.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : Adverse symptoms may include the following:
headache
dizziness/vertigo
drowsiness/fatigue
nausea or vomiting
unconsciousness

Skin contact : Adverse symptoms may include the following:
irritation
redness

Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Section 11. Toxicological information

Carcinogenicity : May cause cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
CITGO CITGEAR® MGW-OGL	46910.7	2669.8	N/A	N/A	N/A
Asphalt (petroleum)	N/A	2500	N/A	N/A	N/A
Alkoxylated long chain alkyl amine	960	N/A	N/A	N/A	N/A
Hydrogen sulfide	N/A	N/A	444	N/A	N/A

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
carbon black	Acute EC50 37.563 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
zinc oxide	Acute IC50 1.85 mg/l Marine water	Algae - Skeletonema costatum	96 hours
	Acute LC50 98 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 1.1 ppm Fresh water	Fish - Oncorhynchus mykiss	96 hours
Hydrogen sulfide	Acute EC50 62 µg/l Fresh water	Crustaceans - Gammarus pseudolimnaeus	2 days
	Acute LC50 2 µg/l Fresh water	Fish - Coregonus clupeaformis - Yolk-sac fry	96 hours

Conclusion/Summary : Not available.

Persistence and degradability

Conclusion/Summary : Not available.

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
zinc oxide	-	28960	high

Mobility in soil

Soil/water partition coefficient (K_{OC}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. 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. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

RCRA classification : D018

Section 14. Transport information

	DOT Classification	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-
Transport hazard class(es)	-	-	-
Packing group	-	-	-
Environmental hazards	No.	No.	No.

Oil: The product(s) represented by this SDS 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.

Additional information

TDG Classification : Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.43-2.45 (Class 9), 2.7 (Marine pollutant mark).
Non-bulk packages of this product are not regulated as dangerous goods when transported by road or rail.

Mexico Classification : The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg.

ADR/RID : This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.
Tunnel code (-)

IATA : The environmentally hazardous substance mark may appear if required by other transportation regulations.

Special precautions for user : **Transport within user’s premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to IMO instruments : Not available.

Section 15. Regulatory information

U.S. Federal regulations :

United States inventory (TSCA 8b): Not determined.

Clean Water Act (CWA) 307: zinc oxide; ethylbenzene; naphthalene; toluene; benzene; ethylbenzene

Clean Water Act (CWA) 311: hydrogen sulphide; xylene; ethylbenzene; naphthalene; toluene; benzene; ethylbenzene

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.

SARA 302/304

Composition/information on ingredients

SARA 304 RQ : Not applicable.

SARA 311/312

Classification :

SKIN IRRITATION - Category 2
EYE IRRITATION - Category 2A
SKIN SENSITIZATION - Category 1
CARCINOGENICITY - Category 1B
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
HNOC - May Contain or Release Poisonous Hydrogen Sulfide Gas

Composition/information on ingredients

Name	%	Classification
Asphalt (petroleum)	≥50 - ≤75	CARCINOGENICITY - Category 2 HNOC - May Contain or Release Poisonous Hydrogen Sulfide Gas
C9-C15 Cycloalkanes	≥10 - ≤25	FLAMMABLE LIQUIDS - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 ASPIRATION HAZARD - Category 1 HNOC - May Contain or Release Poisonous Hydrogen Sulfide Gas
Extracts (petroleum), heavy paraffinic distillate solvent	≤10	CARCINOGENICITY - Category 1B HNOC - May Contain or Release Poisonous Hydrogen Sulfide Gas
C9-C15 Alkanes	≤10	FLAMMABLE LIQUIDS - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 ASPIRATION HAZARD - Category 1 HNOC - May Contain or Release Poisonous Hydrogen Sulfide Gas
Benzene, ethenyl-, polymer with 1,3-butadiene	≤10	EYE IRRITATION - Category 2B HNOC - May Contain or Release Poisonous Hydrogen Sulfide Gas
carbon black	≤3	CARCINOGENICITY - Category 2 HNOC - May Contain or Release Poisonous Hydrogen Sulfide Gas
Alkoxylated long chain alkyl amine	<3	ACUTE TOXICITY (oral) - Category 4 SKIN CORROSION - Category 1B SERIOUS EYE DAMAGE - Category 1 SKIN SENSITIZATION - Category 1 HNOC - May Contain or Release Poisonous Hydrogen Sulfide Gas

State regulations

Section 15. Regulatory information

Massachusetts : The following components are listed: ASPHALT FUMES; MINERAL OIL, PETROLEUM EXTRACTS, HEAVY PARAFFINIC DISTILLATE SOLVENT; OIL MIST, MINERAL; carbon black

New York : None of the components are listed.

New Jersey : The following components are listed: ASPHALT; MINERAL OIL (UNTREATED and MILDLY TREATED); CARBON BLACK

Pennsylvania : The following components are listed: ASPHALT; carbon black

California Prop. 65 Clear and Reasonable Warnings (2018)

⚠ **WARNING**: This product can expose you to chemicals including Carbon black, which is known to the State of California to cause cancer, and Toluene, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Ingredient name	%	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
carbon black	<3	Yes.	No.	-	-
cumene	<0.0001	Yes.	No.	-	-
ethylbenzene	<0.0001	Yes.	No.	Yes.	-
naphthalene	<0.0001	Yes.	No.	Yes.	-
toluene	<0.0001	No.	Yes.	-	Yes.
benzene	<0.0001	Yes.	Yes.	Yes.	Yes.
ethylbenzene	<0.0001	Yes.	No.	Yes.	-
4-methylpentan-2-one	<0.0001	Yes.	Yes.	-	-
ethyl acrylate	trace	Yes.	No.	-	-

International regulations

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

Inventory list

United States : Not determined.

Australia : Not determined.

Canada : Not determined.

China : Not determined.

Japan : **Japan inventory (CSCL)**: Not determined.
Japan inventory (ISHL): Not determined.

Malaysia : Not determined

New Zealand : Not determined.

Philippines : Not determined.

Republic of Korea : Not determined.

Taiwan : Not determined.

Thailand : Not determined.

Turkey : Not determined.

Viet Nam : Not determined.

Section 16. Other information

National Fire Protection Association (U.S.A.)

Section 16. Other information

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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

Procedure used to derive the classification

Classification	Justification
SKIN IRRITATION - Category 2	Calculation method
EYE IRRITATION - Category 2A	Calculation method
SKIN SENSITIZATION - Category 1	Calculation method
CARCINOGENICITY - Category 1B	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3	Calculation method
AQUATIC HAZARD (ACUTE) - Category 2	Calculation method
AQUATIC HAZARD (LONG-TERM) - Category 2	Calculation method

History

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Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

References : Not available.

Indicates information that has changed from previously issued version.

Notice to reader

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