Material Safety Data Sheet

NFPA	WHMIS	PPE	Transport Symbol
	Non-controlled		Not regulated

Revision Date: 26-Mar-2013 **Revision Number:** 0

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Idemitsu Syn. Engine Oil 0W-20 GF5, 12 x 1 Quart Case
Product Code: 20102-042B
Recommended use Automotive Lubricant

Contact Manufacturer
Idemitsu Lubricants America,
701 Port Rd.
Jeffersonville, IN. 47130
Telephone: 812-285-8234
Fax: 812-285-8243
Contact Name: Robin Hutchens
Email: rhutchens@ilacorp.com

Emergency Telephone Number Chemtrec 1-800-424-9300

2. HAZARDS IDENTIFICATION

CAUTION!
Emergency Overview
Vapors may be irritating to eyes, nose, throat, and lungs

Appearance: Yellowish Brown / Clear **Physical State:** Liquid **Odor:** Mild

Mexico - Grade Slight risk, Grade 1

Potential Health Effects

Principle Routes of Exposure Skin, Eye

Acute Effects
Eyes May cause slight irritation

Skin May cause skin irritation and/or dermatitis

Inhalation Contains a petroleum-based mineral oil. May cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommended mineral oil mist exposure limit. Symptoms of respiratory irritation may include coughing and difficulty breathing

Ingestion May be harmful if swallowed

Chronic Effects This product contains a petroleum-based mineral oil. Prolonged or repeated skin contact can cause mild irritation and inflammation characterized by drying, cracking, (dermatitis) or oil acne. Repeated or prolonged inhalation of petroleum-based mineral oil mists at concentrations above applicable workplace exposure levels can cause respiratory irritation or other pulmonary effects

See Section 11 for additional Toxicological information.

Potential Environmental Effects See Section 12 for additional Ecological information.

3. COMPOSITION/INFORMATION ON INGREDIENTS

While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.

Hazardous Components

Chemical Name	CAS-No	Weight %
Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts	68649-42-3	1 - 5

Non-Hazardous Components

Chemical Name	CAS-No	Weight %
Lubricating Base Stocks	Mixture	>80

4. FIRST AID MEASURES

General Advice If symptoms persist, call a physician. Show this safety data sheet to the doctor in attendance.

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician.

Skin contact Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician.

Inhalation Move to fresh air in case of accidental inhalation of vapors. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Call a physician immediately.

Ingestion Do not induce vomiting without medical advice. If vomiting occurs naturally, have casualty lean forward to reduce the risk of aspiration. Swallowing small quantities of diluted product may cause nausea, diarrhea or abdominal distress. Consult a physician.

Protection of First-aiders Use personal protective equipment. Avoid contact with skin, eyes and clothing.

5. FIRE-FIGHTING MEASURES

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Flammable Properties NFPA: Class IIIB Combustible Liquid

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

Hazardous combustion products During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and / or irritating. Combustion products may include and are not limited to, Carbon oxides, Calcium Oxides (CaOx), Hydrogen Sulfide, Nitrogen oxides (NOx), Oxides of Phosphorus, Sulphur oxides, Zinc oxides.

Specific Hazards Arising from the Chemical
Keep product and empty container away from heat and sources of ignition

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

NFPA	**Health:** 1	**Flammability:** 1	**Instability:** 0

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions Avoid contact with the skin and the eyes. Use personal protective equipment. Remove all sources of ignition. Avoid breathing vapors or mists. Ensure adequate ventilation.

Environmental Precautions Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do not allow material to contaminate ground water system. Do not flush into surface water or sanitary sewer system.

Methods for Clean-up Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceus earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Pick up and transfer to properly labeled containers.

Spill Management

LARGE SPILLS Eliminate sources of ignition. Prevent additional discharge of material if possible to do so without hazard. For small spills implement cleanup procedures; for large spills implement cleanup procedures and, if in public area, keep public away and advise authorities. Also, if this product is subject to CERCLA reporting (see Section 15 Regulatory Information) notify the National Response Center.

WATER SPILLS Prevent liquid entering sewers, watercourses, or low areas. Contain spilled liquid with sand or earth. Recover by pumping or with suitable absorbent. If liquid is too viscous for pumping, scrape up. Consult an expert on disposal of recovered material and ensure conformity to local disposal regulations

7. HANDLING AND STORAGE

Handling Wear personal protective equipment. Do not breathe vapors or spray mist. Remove and wash contaminated clothing before re-use. Keep away from open flames, hot surfaces and sources of ignition. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors).

Storage Keep in properly labeled containers. Keep container tightly closed in a dry and well-ventilated place.

Safe Handling Advice Handle in accordance with good industrial hygiene and safety practices.

Technical measures/Precautions Sulfur compounds in this material may decompose when heated to release hydrogen sulfide gas which may accumulate to potentially lethal concentrations in enclosed air spaces. Vapor concentrations of hydrogen sulfide above 50 ppm, or prolonged exposure at lower concentrations, may saturate human odor perceptions so that the smell of gas may not be apparent. Exposure to concentrations of hydrogen sulfide vapor above 500 ppm may cause rapid death. Do not rely on the sense of smell to detect hydrogen sulfide.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

Other Exposure Guidelines (If Generated)

Chemical Name	OSHA PEL	ACGIH TLV	ACGIH OEL (STEL)	NIOSHT REL TWA	ILA IHG	ILA ROEG	ILA Internal Exposure Limit
Hydrogen sulfide	Ceiling: 20 ppm	TWA: 1 ppm STEL: 5 ppm	5 ppm				
Oil mist, mineral	TWA: 5 mg/m^3	TWA: 5 mg/m^3		TWA 5 mg/m^3 ST 10 mg/m^3			

Engineering measures Ensure adequate ventilation, especially in confined areas. Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

Personal Protective Equipment

Eye/face Protection Safety glasses equipped with side shields are recommended as minimum protection in industrial settings.

Skin Protection Wear protective gloves/clothing. Use clean protective clothing if splashing or spraying conditions are present. Protective clothing may include long-sleeve outer garment, apron, or lab coat. **Glove Type:** Neoprene, Nitriles

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.

General Hygiene Considerations When using, do not eat, drink or smoke. Clean equipment, work area and clothing regularly.

9. PHYSICAL AND CHEMICAL PROPERTIES

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Appearance:	Yellowish Brown / Clear
Odor:	Mild
Physical State:	Liquid
Flash Point	> 200°C / 392°F
Method	COC ASTM D92
Density	0.89 g/cm^3@15°C
Viscosity	@ 40C = 44.77 cSt; @ 100C = 8.466 cSt

10. STABILITY AND REACTIVITY

Chemical Stability	Stable under recommended storage conditions. Hazardous polymerization does not occur.
Conditions to Avoid	Heat, flames and sparks
Incompatible Materials	Strong oxidizing agents
Hazardous decomposition products	Thermal decomposition may produce hydrogen sulfide and other sulfur-containing gases at temperatures greater than 150F.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Product Information (Estimated):

LD50 Oral:	> 2,000 mg/kg
LD50 Dermal:	> 2,000 mg/kg
LC50 Inhalation:	21,000 mg/m^3 (dust) 1 hr
LC50 Inhalation (4hr):	5 mg/L (dust) 4 hr

Chronic Toxicity

Carcinogenicity:
No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP, IARC, OSHA, or ACGIH.

12. ECOLOGICAL INFORMATION

Ecotoxicity

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Plants and animals may experience harmful or fatal effects when coated with petroleum products. Petroleum-based (mineral) lubricating oils normally will float on water. As a result, this oil layer might limit or eliminate natural atmospheric oxygen transport into the water. With time, if not removed, oxygen depletion in the waterway may be sufficient to cause fish kill or create an anaerobic environment

This material contains phosphorus which is a controlled element for disposal in effluent waters in most sections of North America. Phosphorus is known to enhance the formation of algae. Severe algae growth can reduce oxygen content in the water possibly below levels necessary to support marine life.
Lubricant oil basestocks are complex mixtures of hydrocarbons (primarily branched chain alkanes and cycloalkanes) ranging in carbon number from C15 to C50. The aromatic hydrocarbon content of these mixtures varies with the severity of the refining process. White oils have negligible levels of aromatic hydrocarbons, whereas significant proportions are found in unrefined basestocks. Olefins are found only at very low concentrations. Volatilization is not significant after release of lubricating oil basestocks to the environment due to the very low vapor pressure of the hydrocarbon constituents. In water, lubricating oil basestocks will float and will spread at a rate that is viscosity dependent. Water solubilities are very low and dispersion occurs mainly from water movement with adsorption by sediment being the major fate process. In soil, lubricating oil basestocks show little mobility and adsorption is the predominant physical process.

Both acute and chronic ecotoxicity studies have been conducted on lubricant base oils. Results indicate that the acute aquatic toxicities to fish, Daphnia, Ceriodaphnia and algal species are above 1000 mg/l using either water accommodated fractions or oil in water dispersions. Since lubricant base oils mainly contain hydrocarbons having carbon numbers in the range C15 to C50, it is predicted that acute toxicity would not be observed with these substances due to low water solubility. Results from chronic toxicity tests show that the no observed effect level (NOEL) usually exceeds 1000 mg/l for lubricant base oils with the overall weight of experimental evidence leading to the conclusion that lubricant base oils do not cause chronic toxicity to fish and invertebrates.

Large volumes spills of lubricant base oils into water will produce a layer of undissolved oil on the water surface that will cause direct physical fouling of organisms and may interfere with surface air exchange resulting in lower levels of dissolved oxygen. Petroleum products have also been associated with causing taint in fish even when the latter are caught in lightly contaminated environments. Highly refined base oils sprayed onto the surface of eggs will result in a failure to hatch

Hazardous Components

Chemical Name	Freshwater Algae	LC50 Fresh Water Fish	Microtox
Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts		10.0 - 35.0 mg/L 96 h 1.0 - 5.0 mg/L 96 h	

Chemical Name	Water Flea
Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts	EC50 1 - 1.5 mg/L 48 h

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.

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Waste Disposal Method 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 in accordance with local regulations

14. TRANSPORT INFORMATION

DOT Not regulated

IATA Not regulated

IMDG/IMO Not regulated

15. REGULATORY INFORMATION

International Inventories

All components in the product are on the following Inventory Lists: U.S.A. (TSCA), Canada (DSL/NDSL), Australia (AICS), Korea (ECL), China (IECSC), Japan (ENCS), Philippines (PICCS).

Hazardous Components

Chemical Name	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	CHINA	KECL	PICCS	AICS	NZIoC
Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts	X	X	-	X	-	X	X	X	X	X	X

USA

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 and Title 40 of the Code of Federal Regulations, Part 372:

Chemical Name	CAS-No	Weight %	SARA 313 - Threshold Values
Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts	68649-42-3	1 - 5	1.0

SARA 311/312 Hazardous Categorization

Acute Health Hazard	No
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

CERCLA/SARA 302 & 304
Section 302 & 304 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 355.

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)
This product does not contain any HAPs.

State Regulations

California Proposition 65
This product does not contain any Proposition 65 chemicals.

State Right-to-Know

Chemical Name	Massachusetts	New Jersey	Pennsylvania
Petroleum distillates, solvent-refined light paraffinic	X		
Petroleum distillates, solvent dewaxed light paraffinic	X		

Predominant Ingredients - NJRTK

Chemical Name	CAS-No
Lubricating oils, petroleum, C15-30, hydrotreated neutral oil-based	72623-86-0
Benzenesulfonic acid, C14-24-branched and linear alkyl derivitives, calcium salts, overbased	115733-10-3
Polyolefin amide alkyleneamine borate	17799
Petroleum distillates, solvent-refined heavy paraffinic	64741-88-4
Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts	68649-42-3

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Hazard Class Non-controlled

16. OTHER INFORMATION

Prepared By Susie Bibb

Revision Date: 26-Mar-2013

Revision Summary: Appearance, Exposure Guidelines change.

Disclaimer:
The information provided on this MSDS 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.

End of Safety Data Sheet