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# SAFETY DATA SHEET

# SECTION 1

# PRODUCT AND COMPANY IDENTIFICATION

# PRODUCT

Product Name: **MOBILGREASE 28** Product Description: Product Code: 201550402020. Recommended Use: Grease

Synthetic Base Stocks and Additives 530626-87

COMPANY IDENTIFICATION

Supplier:

EMG Lubricants GodoKaisha 1-8-15, Kohnan, Minato-ku Tokyo 〒 108-8005 Japan

Supplier General Contact

0120-016-313

# SECTION 2

HAZARDS IDENTIFICATION

This material is hazardous according to regulatory guidelines (see (M)SDS Section 15).

# GHS CLASSIFICATION:

Acute aquatic toxicant: Category 3. Chronic aquatic toxicant: Category 3.

GHS Label Elements: Pictogram: No Pictogram

Signal Word: No Signal Word

# Hazard Statements:

Environmental: H412: Harmful to aquatic life with long lasting effects.

# Precautionary Statements:

Prevention: P273: Avoid release to the environment. Disposal: P501: Dispose of contents and container in accordance with local regulations.



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Contains: N-PHENYL-1-NAPHTHYLAMINE May produce an allergic reaction.

Other hazard information:

# PHYSICAL / CHEMICAL HAZARDS

No significant hazards.

#### HEALTH HAZARDS

High-pressure injection under skin may cause serious damage. Excessive exposure may result in eye, skin, or respiratory irritation. Secondary amines or materials containing secondary amines should not be added to this product due to the risk of forming nitrosamines, some of which have been shown to be carcinogenic in lab animals.

# ENVIRONMENTAL HAZARDS

No additional hazards.

**NOTE:** This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

# Chemical Substance or Mixture Identification

This material is defined as a mixture.

# Hazardous Substance(s) or Complex Substance(s) required for disclosure

Name	CAS#	Concentration*	GHS Hazard Codes
1-NAPHTHYLAMINE, N-PHENYL-	90-30-2	0.1 - < 1%	H302, H317, H373, H400(M factor 1), H410(M factor 1)
N-OLEYLSARCOSINE	110-25-8	0.1 - < 1%	H315, H318, H332, H400(M factor 1), H412
PENTAERYTHRITOL	115-77-5	1 - < 5%	None
SODIUM NITRITE	7632–00–0	0.1 - < 1%	H272(2)(S), H301, H319(2A), H400(M factor 1)
SODIUM PHOSPHATE, TRIBASIC	10101-89-0	0.1 - < 1%	H315, H319(2A), H335

\* All concentrations are percent by weight unless material is a gas. Gas concentrations are in percent by volume.

SECTION 4 FIRST AID MEASURES
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#### INHALATION

Under normal conditions of intended use, this material is not expected to be an inhalation hazard.



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# SKIN CONTACT

Wash contact areas with soap and water. If product is injected into or under the skin, or into any part of the body, regardless of the appearance of the wound or its size, the individual should be evaluated immediately by a physician as a surgical emergency. Even though initial symptoms from high pressure injection may be minimal or absent, early surgical treatment within the first few hours may significantly reduce the ultimate extent of injury.

#### EYE CONTACT

Flush thoroughly with water. If irritation occurs, get medical assistance.

#### INGESTION

First aid is normally not required. Seek medical attention if discomfort occurs.

# NOTE TO PHYSICIAN

None

#### SECTION 5

# FIRE FIGHTING MEASURES

#### EXTINGUISHING MEDIA

**Appropriate Extinguishing Media:** Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

Inappropriate Extinguishing Media: Straight Streams of Water

#### FIRE FIGHTING

**Fire Fighting Instructions:** Evacuate area. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Firefighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

Hazardous Combustion Products: Aldehydes, Incomplete combustion products, Oxides of carbon, Smoke, Fume, Sulfur oxides

# FLAMMABILITY PROPERTIES

Flash Point [Method]: >204° C (400° F) [EST. FOR OIL, ASTM D-92 (COC)] Flammable Limits (Approximate volume % in air): LEL: 0.9 UEL: 7.0 Autoignition Temperature: N/D

SECTION 6

ACCIDENTAL RELEASE MEASURES

#### NOTIFICATION PROCEDURES



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In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

#### PERSONAL PRECAUTIONS

Avoid contact with spilled material. See Section 5 for fire fighting information. See the Hazard Identification Section for Significant Hazards. See Section 4 for First Aid Advice. See Section 8 for advice on the minimum requirements for personal protective equipment. Additional protective measures may be necessary, depending on the specific circumstances and/or the expert judgment of the emergency responders.

#### SPILL MANAGEMENT

**Land Spill:** Stop leak if you can do it without risk. Scrape up spilled material with shovels into a suitable container for recycle or disposal.

**Water Spill:** Stop leak if you can do it without risk. Confine the spill immediately with booms. Warn other shipping. Skim from surface.

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

#### ENVIRONMENTAL PRECAUTIONS

Prevent entry into waterways, sewers, basements or confined areas.

# SECTION 7

#### HANDLING AND STORAGE

HANDLING (Technical Measures; Safety Handling Precautions; Contact Avoidance) Prevent small spills and leakage to avoid slip hazard. Contains Sodium nitrite. Do not add amines which may form cancer causing nitrosamines.

**Static Accumulator:** This material is not a static accumulator.

STORAGE (Safe Storage Conditions; Safe Containers and Packaging Materials) Do not store in open or unlabelled containers.

# SECTION 8

#### EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMIT VALUES

Exposure limits/standards (Note: Exposure limits are not additive)



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Substance Name	Form	Limit /	Standard	NOTE	Source
PENTAERYTHRITOL		TWA	10 mg/m3		ACGIH
SODIUM PHOSPHATE, TRIBASIC		STEL	5 mg/m3		OARS WEEL

# **Biological limits**

No biological limits allocated.

NOTE: Limits/standards shown for guidance only. Follow applicable regulations.

#### ENGINEERING CONTROLS

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider:

No special requirements under ordinary conditions of use and with adequate ventilation.

#### PERSONAL PROTECTION

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

**Respiratory Protection:** If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include:

No protection is ordinarily required under normal conditions of use and with adequate ventilation. Particulate

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapor warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

**Hand Protection:** Any specific glove information provided is based on published literature and glove manufacturer data. Glove suitability and breakthrough time will differ depending on the specific use conditions. Contact the glove manufacturer for specific advice on glove selection and breakthrough times for your use conditions. Inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include:

No protection is ordinarily required under normal conditions of use. Nitrile, Viton



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**Eye Protection:** If contact is likely, safety glasses with side shields are recommended.

**Skin and Body Protection:** Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include:

No skin protection is ordinarily required under normal conditions of use. In accordance with good industrial hygiene practices, precautions should be taken to avoid skin contact.

**Specific Hygiene Measures:** Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

#### ENVIRONMENTAL CONTROLS

Comply with applicable environmental regulations limiting discharge to air, water and soil. Protect the environment by applying appropriate control measures to prevent or limit emissions.

# SECTION 9

#### PHYSICAL AND CHEMICAL PROPERTIES

Note: Physical and chemical properties are provided for safety, health and environmental considerations only and may not fully represent product specifications. Contact the Supplier for additional information.

#### BASIC PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Solid Color: Dark Red Odor: Characteristic Melting Point: N/D Freezing Point: N/D Initial Boiling Point / Range:  $> 316^{\circ} C (600^{\circ} F)$  [Estimated] Flammability: Ignitable Lower and Upper Explosion Limit/Flammability Limit: LEL: 0.9 UEL: 7.0 >204° C (400° F) [ EST. FOR OIL, ASTM D-92 (COC)] Flash Point [Method]: Autoignition Temperature: N/D Decomposition Temperature: N/D pH: N/A Kinematic Viscosity: 29.3 cSt (29.3 mm2/sec) at 40 ° C | 5.7 cSt (5.7 mm2/sec) at 100° C [Estimated] **Solubility in Water:** Negligible Partition Coefficient: n-Octanol/water (log value): > 3.5 < 0.013 kPa (0.1 mm Hg) at 20 °C Vapor Pressure: Relative Density (at 15.6 °C): 0.945 [Calculated] **Relative Vapor Density (Air = 1):** > 2 at 101 kPa



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Particle Characteristics: Median Size: N/A Size Range: N/A

# OTHER INFORMATION

Form: Semi-fluid Evaporation Rate (n-butyl acetate = 1): N/D Oxidizing Properties: See Hazards Identification Section.

NOTE: Most physical properties above are for the oil component in the material.

# SECTION 10 STABILITY AND REACTIVITY

**REACTIVITY:** See sub-sections below.

STABILITY: Material is stable under normal conditions.

CONDITIONS TO AVOID: Excessive heat. High energy sources of ignition.

MATERIALS TO AVOID: Strong oxidizers

HAZARDOUS DECOMPOSITION PRODUCTS: Material does not decompose at ambient temperatures.

POSSIBILITY OF HAZARDOUS REACTIONS: Hazardous polymerization will not occur.

SECTION 11

# TOXICOLOGICAL INFORMATION

# INFORMATION ON TOXICOLOGICAL EFFECTS

<u>Hazard Class</u>	Conclusion / Remarks
Inhalation	
Acute Toxicity: No end point data for	Minimally Toxic. Based on assessment of the components.
material.	
Irritation: No end point data for	Negligible hazard at ambient/normal handling temperatures.
material.	
Ingestion	
Acute Toxicity: No end point data for	Minimally Toxic. Based on assessment of the components.
material.	
Skin	
Acute Toxicity: No end point data for	Minimally Toxic. Based on assessment of the components.
material.	
Skin Corrosion/Irritation: No end point	Negligible irritation to skin at ambient temperatures.
data for material.	Based on assessment of the components.



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May cause mild, short-lasting discomfort to eyes. Based on
assessment of the components.
Not expected to be a respiratory sensitizer.
Not expected to be a skin sensitizer. Based on assessment
of the components.
Not expected to be an aspiration hazard. Based on physico-
chemical properties of the material.
Not expected to be a germ cell mutagen. Based on assessment
of the components.
Not expected to cause cancer. Based on assessment of the
components.
Not expected to be a reproductive toxicant. Based on
assessment of the components.
Not expected to cause harm to breast-fed children.
Not expected to cause organ damage from a single exposure.
Not expected to cause organ damage from prolonged or
repeated exposure. Based on assessment of the components.

# TOXICITY FOR SUBSTANCES

NAME	ACUTE TOXICITY
1-NAPHTHYLAMINE, N-PHENYL-	Oral Lethality: LD50 1625 mg/kg (Rat)

#### OTHER INFORMATION

#### For the product itself:

Component concentrations in this formulation would not be expected to cause skin sensitization, based on tests of the components, this formulation, or similar formulations. **Contains:** 

Synthetic base oils: Not expected to cause significant health effects under conditions of normal use, based on laboratory studies with the same or similar materials. Not mutagenic or genotoxic. Not sensitizing in test animals and humans.

N-phenyl-1-naphthylamine (PAN): A single oral overexposure may result in clinical signs/symptoms of cyanosis, headache, shallow respiration, dizziness, confusion, low blood pressure, convulsions, coma, or jaundice. Hematuria may occur due to bladder and kidney irritation, and anemia may develop later. Repeated exposure in laboratory animals caused liver and kidney damage and depressed bone marrow activity. Undiluted PAN is a skin sensitizer. Human testing of lubricants containing 1.0% PAN resulted in no reactions indicative of sensitization. Phenyl-alpha-naphthylamine (PAN): Undiluted PAN is a skin sensitizer. Human testing 1.0% PAN caused no reactions indicative of sensitization.

SODIUM NITRITE: Ingestion of sodium nitrite may reduce the oxygen-carrying capacity of blood and may



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cause cyanosis (bluish skin), shortness of breath, palpitations, coma, and/or death.

See Section 16 for a description of sources for reference data.

# IARC Classification:

The following ingredients are cited on the lists below:

Chemical Name	CAS Number	List Citations
SODIUM NITRITE	7632-00-0	2

	REGULATORY LISTS SEARCHED	
1 = IARC 1	2 = IARC 2A	3 = IARC 2B

# SECTION 12 ECOLOGICAL INFORMATION

The information given is based on data for the material, components of the material, or for similar materials, through the application of bridging principals.

#### ECOTOXICITY

Material -- Expected to be harmful to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

#### MOBILITY

Base oil component -- Low solubility and floats and is expected to migrate from water to the land. Expected to partition to sediment and wastewater solids.

PERSISTENCE AND DEGRADABILITY Not determined.

# **BIOACCUMULATIVE POTENTIAL** Not determined.

Hazard to the Ozone Layer

Not Applicable

See Section 16 for a description of sources for reference data.

# SECTION 13

# DISPOSAL CONSIDERATIONS

Information on Safe and Environmentally Desirable Disposal or Recycling of Chemicals, Contaminated Containers and Packaging

**DISPOSAL METHODS** 



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Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

#### DISPOSAL RECOMMENDATIONS

Suitable routes of disposal are supervised incineration, preferentially with energy recovery, or appropriate recycling methods in accordance with applicable regulations and material characteristics at the time of disposal.

**Empty Container Warning** Empty Container Warning (where applicable): Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations. DO NOT PRESSURISE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

# SECTION 14 TRANSPORT INFORMATION

#### LAND - Precautionary Transportation Measures & Conditions:

Do not co-load together with dangerous substances categorized in Fire Cat. 1 and/or 6, and/or High Pressure Gases.

NOTE: Comply with applicable laws and regulations.

SEA (IMDG): Not Regulated for Sea Transport according to IMDG-Code

Marine Pollutant: No

AIR (IATA): Not Regulated for Air Transport

# SECTION 15 REGULATORY INFORMATION

This material is considered hazardous according to the Classification of Chemicals based on Globally Harmonized System of Classification and Labelling of Chemicals (GHS) (JIS Z 7252-2019).

#### REGULATORY STATUS AND APPLICABLE LAWS AND REGULATIONS

Listed or exempt from listing/notification on the following chemical inventories : AIIC, DSL, ENCS, IECSC, ISHL, TCSI, TSCA Special Cases:



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Inventory	Status
KECI	Restrictions Apply

#### National Laws and Regulations:

Chemical Substances Control Law: Existing Chemicals

Chemical Substances Control Law substances:

Chemical Name	Referenced List	ENCS Number
NITRILOTRIACETIC ACID	Priority Assessment	2–1276

Fire Service Law: Not Dangerous Substances Maritime Pollution Prevention Law: Regulated Mariners Labour Safety and Health Regulation: Regulated Poisonous and Deleterious Substances Control Law (PDSCL): Not Regulated Pollutant Release and Transfer Register (PRTR): Not Regulated Sewage Water Law: Mineral oil (5mg/l max.) Waste Treatment Law : Controlled Industrial Waste Water Pollution Control Law: Effluent Regulation (5mg/l max.)

# JAPANESE COMPOSITION INFORMATION

Industrial Safety and Health Law: Article 57, Chemical substances to be labelled: None.

Industrial Safety and Health Law: Article 57-2, Chemical substances to be notified: None.

ISHL Enforcement Order, Table 3-1, Manufacturing Permit Chemical Substances: None.

PRTR Class 1 Designated Chemical Substances: None.

PRTR Class 2 Designated Chemical Substances: None.

PDSCL Chemical Substances: None.

# SECTION 16

# OTHER INFORMATION

**SOURCE OF REFERENCE MATERIAL:** Sources of information used in preparing this SDS included one or more of the following: results from in house or supplier toxicology studies, CONCAWE Product Dossiers, publications from other trade associations, such as the EU Hydrocarbon Solvents REACH Consortium, U.S. HPV Program Robust Summaries, the EU IUCLID Data Base, U.S. NTP publications, and other sources, as appropriate.



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N/D = Not determined. N/A = Not applicable KEY TO THE H-CODES CONTAINED IN SECTION 3 OF THIS DOCUMENT (for information only): H272(2): May intensify fire; oxidizer; Oxidizing Solid, Cat 2 H301: Toxic if swallowed; Acute Tox Oral. Cat 3 H302: Harmful if swallowed; Acute Tox Oral, Cat 4 H315: Causes skin irritation; Skin Corr/Irritation, Cat 2 H317: May cause allergic skin reaction; Skin Sensitization, Cat 1 H318: Causes serious eye damage; Serious Eye Damage/Irr, Cat 1 H319(2A): Causes serious eye irritation; Serious Eye Damage/Irr. Cat 2A H332: Harmful if inhaled; Acute Tox Inh. Cat 4 H335: May cause respiratory irritation; Target Organ Single, Resp Irr H373: May cause damage to organs through prolonged or repeated exposure; Target Organ, Repeated, Cat 2 H400: Very toxic to aquatic life; Acute Env Tox, Cat 1 H410: Very toxic to aquatic life with long lasting effects; Chronic Env Tox, Cat 1 H412: Harmful to aquatic life with long lasting effects; Chronic Env Tox, Cat 3 THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS: Composition: ISHL LABEL Table information was added. Composition: ISHL LABEL Table information was deleted. Composition: ISHL Table information was added. Composition: ISHL Table information was deleted. Section 09: Decomposition Temp C(F) information was added. Section 09: Decomposition Temp C(F) information was deleted. Section 09: Flammability (Solid, Gas) information was deleted. Section 09: Flammability information was added. Section 09: Flammable Limits - LEL information was added. Section 09: Flammable Limits - UEL information was added. Section 09: Particle Characteristics information was added. Section 09: Particle Range information was added. Section 09: Physical State information was deleted. Section 10: Reactivity information was added. Section 11 Substance Toxicology table information was added. Section 11: Aspiration Conclusion information was added. Section 11: Aspiration Test Data information was added. Section 11: Carcinogen Conclusion information was added. Section 11: Carcinogen Test Comment information was added. Section 11: Carcinogen Test Data information was added. Section 11: Chronic Tox - Component information was deleted. Section 11: Dermal Irritation Test Data information was added. Section 11: Dermal Irritation Test Data information was deleted. Section 11: Dermal Lethality Test Data information was added. Section 11: Dermal Lethality Test Data information was deleted. Section 11: Eve Irritation Test Data information was added. Section 11: Eye Irritation Test Data information was deleted. Section 11: Inhalation Lethality Test Data information was added.

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Section 11: Inhalation Lethality Test Data information was deleted. Section 11: Lactation Conclusion information was added. Section 11: Lactation Test Data information was added. Section 11: Mutagen Conclusion information was added. Section 11: Mutagen Test Comment information was added. Section 11: Mutagen Test Data information was added. Section 11: Oral Lethality Test Data information was added. Section 11: Oral Lethality Test Data information was deleted. Section 11: Other Health Effects information was added. Section 11: Reproductive Conclusion information was added. Section 11: Reproductive Test Comment information was added. Section 11: Reproductive Test Data information was added. Section 11: Respiratory Sensitization Conclusion information was added. Section 11: Respiratory Sensitization Test Data information was added. Section 11: Skin Sensitization Conclusion information was added. Section 11: Skin Sensitization Test Comment information was added. Section 11: Skin Sensitization Test Data information was added. Section 11: Target Organ Toxicity - Repeat Conclusion information was added. Section 11: Target Organ Toxicity - Repeat Test Comment information was added. Section 11: Target Organ Toxicity - Repeat Test Data information was added. Section 11: Target Organ Toxicity - Single Conclusion information was added. Section 11: Target Organ Toxicity - Single Test Data information was added. Section 11: Tox List Cited Table information was added. Section 12: Ecological Information - Bioaccumulation information was added. Section 12: Ecological Information - Persistence and Degradability information was added. Section 15: ISHL information was deleted. Section 15: Japan Hazard Statement information was modified. Section 16: HCode Key information was modified.

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Internal Use Only MHC: 0, 0, 0, 0, 0, 0 DGN: 2006172XJP (553106)

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