

Product Name: PROWAX 561
Revision Date: 12 Mar 2021
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MATERIAL SAFETY DATA SHEET

MSDS No.: N/A

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

A. Product Name: PROWAX 561

Product Description: Petroleum Hydrocarbons

Product Code: 401010109030, 761114

B. Recommended Use of Product and Restrictions in Use.

Recommended use of the product: Others, Wax

Restrictions in Use: This product is not recommended for any industrial, professional or consumer use other than the identified uses above.

C. Manufacturer/Supplier information:

For details contact

Mobil Korea Lube Oil Inc.

Level 22, Seoul Square bd., 416

Hangang-daero, Jung-gu,

Seoul Republic of Korea

Emergency Response Number	00-308-13-2549 / +1-703-527-3887
Supplier General Contact	82-2-750-8700
FAX	82-2-750-8751

SECTION 2 HAZARDS IDENTIFICATION

This material is not hazardous according to regulatory guidelines (see (M)SDS Section 15).

A. Hazard Classification: Not Applicable

B. Label Elements Including Precautionary Statements: Not Applicable

Hazard Pictogram: Not Applicable

Signal Word: Not Applicable

Hazard Statements: Not Applicable

Precautionary Statements: Not Applicable

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C. Other Hazards Which Are Not Included In The Classification Criteria

Physical / Chemical Hazards

Thermal burn hazard – contact with hot material may cause thermal burns.

Health Hazards

High-pressure injection under skin may cause serious damage. When heated, the vapors/fumes given off may cause respiratory tract irritation.

Environmental Hazards

No significant hazards.

NFPA Hazard ID:	Health:	1	Flammability:	1	Reactivity:	0
HMIS Hazard ID:	Health:	1	Flammability:	1	Reactivity:	0

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
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This material is defined as a complex substance.

No Hazardous Substance(s) or Complex Substance(s) required for disclosure.

* 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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A. Eye Contact

Flush thoroughly with water for at least 15 minutes. Get medical assistance.

B. Skin Contact

Wash contact areas with soap and water. If burned by contact with hot material, molten material adhering to skin should be cooled as quickly as possible with water, and see a physician for removal of adhering material and treatment of burn. 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.

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C. Inhalation

Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.

D. Ingestion

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

E. Other note to physician

None

Acute and Delayed Symptoms/Effects

See Toxicological Section

Pre-existing Medical Conditions Which May Be Aggravated By Exposure

None.

SECTION 5	FIRE FIGHTING MEASURES
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Flammability Properties

Flash Point [Method]: 232° C (450° F) [ASTM D-92]

Autoignition Temperature: N/D

Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D

A. Suitable (and Unsuitable) 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

B. Specific Hazards arising from the Chemical

Unusual Fire Hazards: None

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

C. Special Protective Equipment and Precautions for Fire-fighters

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.

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SECTION 6

ACCIDENTAL RELEASE MEASURES

A. Personal Precautions and Protective Equipment

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.

B. Environmental Precautions and Protective Procedure

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

Large Spills: Dike far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas.

C. Methods and Materials for Containment and Cleaning Up

Land Spill: Allow spilled material to solidify and scrape up 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.

SECTION 7

HANDLING AND STORAGE

A. Precautions for Safe Handling

When heated, the vapors/fumes given off may cause respiratory tract irritation. Prevent small spills and leakage to avoid slip hazard. In liquid state, material can accumulate static charges which may cause an electrical spark (ignition source). When the material is handled in bulk, an electrical spark could ignite any flammable vapors from liquids or residues that may be present (e.g., during switch-loading operations). Use proper bonding and/or ground procedures. However, bonding and grounds may not eliminate the hazard from static accumulation. Consult local applicable standards for guidance. Additional references include American Petroleum Institute 2003 (Protection Against Ignitions Arising out of Static, Lightning and Stray Currents) or National Fire Protection Agency 77 (Recommended Practice on Static Electricity) or CENELEC CLC/TR 50404 (Electrostatics – Code of practice for the avoidance of hazards due to static electricity).

Static Accumulator: This material in the liquid state is a static accumulator.

B. Conditions for Safe Storage

The type of container used to store the material may affect static accumulation and dissipation.
Do not store in open or unlabelled containers.

SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

A. Exposure Limit Values, Biological Limit Values

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

Substance Name	Form	Limit / Standard			Note	Source	Year
Wax fumes	Fume.	TWA	2 mg/m3			Korea OELs	2018
Wax fumes	Fume.	TWA	2 mg/m3			ACGIH	2020

Exposure limits/standards for materials that can be formed when handling this product: For dusty conditions, ACGIH recommends for insoluble and poorly soluble particles not otherwise specified an 8-hour TWA of 10 mg/m3 (inhalable particles), 3 mg/m3 (respirable particles).

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

No biological limits allocated.

B. Appropriate Engineering Controls

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

Adequate ventilation should be provided so that exposure limits are not exceeded.

C. Personal Protective Equipment

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 special requirements under ordinary 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

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capacity/rating may be exceeded.

Eye Protection: If contact with material may occur, safety glasses and face shield are recommended.

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:

If product is hot, thermally protective, chemical resistant gloves are recommended. If contact with forearms is likely, wear gauntlet style gloves. Nitrile, Viton

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: If product is hot, thermally protective, chemical resistant apron and long sleeves are recommended.

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.

A. Appearance

Physical State: Solid

Color: Yellow

B. Odor: Mild

C. Odor Threshold: N/D

D. pH: N/A

E. Melting Point: N/A

Freezing Point: N/D

F. Initial Boiling Point / Range: > 316° C (601° F) [Estimated]

G. Flash Point [Method]: 232° C (450° F) [ASTM D-92]

H. Evaporation Rate (n-butyl acetate = 1): N/D

I. Flammability (Solid, Gas): N/A

J. Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D

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K. Vapor Pressure: < 0.013 kPa (0.1 mm Hg) at 20 ° C [Estimated]
L. Solubility in Water: Negligible
M. Vapor Density (Air = 1): N/D
N. Relative Density (at 15 ° C): 0.9
O. Log Pow (n-Octanol/Water Partition Coefficient): > 6 [Estimated]
P. Autoignition Temperature: N/D
Q. Decomposition Temperature: N/D
R. Viscosity: [N/A at 40 ° C] | 9 cSt (9 mm²/sec) at 100° C
S. Molecular Weight: N/D

Other Information

SECTION 10	STABILITY AND REACTIVITY
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A. Chemical Stability and Possibility of Hazard Reactions

Chemical Stability: Material is stable under normal conditions.

Possibility of Hazardous Reactions: Hazardous polymerization will not occur.

B. Conditions to Avoid: Excessive heat.

C. Incompatible Materials: Strong oxidizers

D. Hazardous Decomposition Products: Material does not decompose at ambient temperatures.

SECTION 11	TOXICOLOGICAL INFORMATION
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A. Information on Likely Routes of Exposure

No data available

B. Information on Health Hazards

Acute Toxicity (Inhalation):

Product

No end point data for material. Not determined.

Inhalation Irritation: No end point data for material. Elevated temperatures or mechanical action may form vapors, mist, or fumes which may be irritating to the eyes, nose, throat, or lungs.

Acute Toxicity (Ingestion):

Product

(Rat) LD50 > 5000 mg/kg Minimally Toxic. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 401 420

Acute Toxicity (Dermal)

Product

(Rabbit) LD50 > 2000 mg/kg Minimally Toxic. Based on test data for structurally

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similar materials. Test(s) equivalent or similar to OECD Guideline 402

Skin corrosion/irritation

Product

(Rabbit) Data available. Negligible irritation to skin at ambient temperatures. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 404

Serious eye damage/irritation

Product

(Rabbit) Data available. May cause mild, short-lasting discomfort to eyes. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 405

Respiratory sensitization

Product

No end point data for material. Not expected to be a respiratory sensitizer.

Skin sensitization

Product

Data available. Not expected to be a skin sensitizer. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 406

Carcinogenicity

Product

Data available. Not expected to cause cancer. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 453

Germ cell mutagenicity

Product

Data available. Not expected to be a germ cell mutagen. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 471 473 474 476

Reproductive toxicity

Product

Data available. Not expected to be a reproductive toxicant. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 414 421

Specific target organ toxicity – single exposure

Product

No end point data for material. Not expected to cause organ damage from a single exposure.

Specific target organ toxicity – repeat exposure

Product

Data available. Not expected to cause organ damage from prolonged or repeated exposure. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 408 410 411 453

Aspiration hazard

Product

Data available. Not expected to be an aspiration hazard. Based on physico-chemical properties of the material.

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Other Information

For the product itself: Petroleum wax: Not carcinogenic in lifetime animal skin painting or oral feeding studies. Did not cause mutations in vitro. High oral doses in one rat strain (F-344) resulted in microscopic inflammatory changes (microgranulomas) in liver, spleen, and lymph nodes, some increased organ weights, inflammation of the cardiac mitral valve, and accumulation of saturated mineral hydrocarbons in certain tissues. Non-sensitizing in animal tests and human subjects.

IARC Classification:

The following ingredients are cited on the lists below: None.

--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.

A. Ecotoxicity

Material -- Not expected to be harmful to aquatic organisms.

B. Persistence and Degradability

Biodegradation:

Hydrocarbon component -- Expected to be inherently biodegradable

C. Bioaccumulation

Hydrocarbon component -- Has the potential to bioaccumulate, however metabolism or physical properties may reduce the bioconcentration or limit bioavailability.

D. Mobility

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

E. Other adverse effects: Not applicable

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SECTION 13	DISPOSAL CONSIDERATIONS
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A. Disposal methods

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.

B. Disposal precautions

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
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REGULATION ON SHIP-TRANSPORTATION AND STORAGE OF DANGEROUS SUBSTANCES (SEA (IMDG)) Not Regulated for Sea Transport according to IMDG-Code

- A. **UN Number:** Not applicable
- B. **Proper Shipping Name:** Not applicable
- C. **Hazard Class & Division:** Not applicable
- D. **Packing Group:** Not applicable
- E. **Marine Pollutant:** Not applicable
- F. **Special Precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance:** Not applicable

LAND (ADR/RID) Not Regulated for Land Transport

- A. **UN Number:** Not applicable
- B. **Proper Shipping Name:** Not applicable
- C. **Hazard Class & Division:** Not applicable
- D. **Packing Group:** Not applicable
- E. **Marine pollutants:** Only applicable for sea transport
- F. **Special Precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance:** Not applicable

AIR (IATA) Not Regulated for Air Transport

- A. **UN Number:** Not applicable
- B. **Proper Shipping Name:** Not applicable
- C. **Hazard Class & Division:** Not applicable
- D. **Packing Group:** Not applicable
- E. **Marine pollutants:** Only applicable for sea transport

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F. Special Precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance: Not applicable

SECTION 15

REGULATORY INFORMATION

This material is not considered hazardous according to Korean GHS classification criteria.

Regulatory Status and Applicable Laws and Regulations

A. Industrial Safety & Health Act : Prohibited, Subject to an Approval for Manufacturing and Controlled Hazardous Substances: None.

B. Chemicals Control Act : Toxic, Banned and Restricted Toxic Chemicals, Authorization substances, Accidental Release Prevention Substances and Priority Existing Chemicals to Registration: None.

C. ACT ON THE SAFETY CONTROL OF HAZARDOUS SUBSTANCES: Category 4. Class 4 petroleum chemicals

D.

E. Other requirements in domestic and other countries

Listed or exempt from listing/notification on the following chemical inventories (May contain substance(s) subject to notification to the EPA Active TSCA inventory prior to import to USA): AIIC, DSL, ENCS, IECSC, ISHL, KECI, PICCS, TCSI, TSCA

SECTION 16

OTHER INFORMATION

A. Information sources and references: 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.

B. The first Issuing date: June 8 2011

C. Revision number and latest revision date

Revision Number:1

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D. Others

N/D = Not determined, N/A = Not applicable

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THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:MSDS reformatted and Implementation of new GHS adoption according to regulation requirements.

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