HMIS CODES	
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Material Safety Data Sheet & Chemical Safety Data Sheet

ALSPEC INDUSTRIES SDN BHD (429187 – T)
No. 6 & 8 Jalan TPP 5/17, Seksyen 5,
Taman Perindustrian Puchong,
47100 Puchong, Selangor Darul Ehsan
MALAYSIA
Tel : 016 – 216 6431 Email : info@alspec.com

Issue Date : 18/11/2004

Section 1 – PRODUCT IDENTIFICATION

Product Code : GP 1
Product Name : Heavy Duty Grease, Calcium Complex
Chemical Name : Lubricating Grease
CAS# : Mixture
Common Name : Grease

Section 2 – COMPONENTS

COMPONENT/COMMON NAME	CAS NO OF COMPONENTS	%
Petroleum Blend (s)	64742-57-0 & 64742-18-3	>60
Synthetic Fluids (s)	68037-01-4	<5
Metal Carboxylate (s)	Compound Mixture	>30
Proprietary Additives	Mixture	5

Contains no other ingredients now known to be hazardous as defined by OSHA 29 CFR 1910.1000(z)

Section 3 – PHYSICAL & CHEMICAL PROPERTIES

Appearance : Semi-Solid/Paste Consistency – Emarald Green Color
Boiling Point : N/A
Evaporation Point : Negligible
Flammability : N/A
Flash Point : N/A
Odor : Petroleum Oil Odor
Ph : N/A
Solubility : Negligible
Specific Gravity : 0.877 – 0.889 @15.6^{o}C/15.6^{o}C
Vapor Density : N/A
Vapor Pressure : Negligible at Ambient
VOC, % : Negligible

Section 4 – HAZARD IDENTIFICATION

Principle Hazards : Slightly combustible.
Prolonged or repeated skin contact may cause dermatitis.
See section 11 for complete health hazard information.
Threshold Limits : The PEL (OSHA) and the TLV (ACGIH) is 5mg/m^3 as an oil mists.

PRIMARY ROUTES OF EXPOSURE

EYE : May cause mild eye irritation. Direct exposure to vapors may cause stinging, tearing and redness. May aggravate existing conjunctivitis of the eye, based on data from components or similar materials

SKIN : Repeated or prolonged contact with skin may cause irritation which may lead to various skin disorders such as dermatitis, oil acne, or foliculitis. Avoid prolonged skin contact. .

INHALATION : Inhalation of vapors or mists may be harmful. Purposely breathing high concentration of heated vapors may cause light-headedness and nausea, irritate mucosal membranes of mouth, nose, and throat; and aggravate existing respiratory diseases.

ORAL : Ingestion via minor contamination on fingers or food is not likely to cause significant discomfort or adverse affects. Gross amounts may cause irritation of the digestive tract (due to product consistency), nausea and vomiting. Aspiration into the lungs during ingestion or vomiting may cause mild to severe pulmonary injury.

Section 5 – FIRST AID MEASURES

ORAL : DO NOT INDUCE VOMITING. If conscious, give 2 glasses of water. Get immediate medical attention.

EYE : Flush with at least 15 minutes. Get medical attention if eye irritation develops or persists.

SKIN : Wash immediately with soap and water. Remove soiled clothing. Get medical attention if irritation develops. Launder contaminated clothing.

INHALATION : Remove exposed person to fresh air. If breathing is labored, administer oxygen and obtain immediate medical attention. If irritation persists or if toxic symptoms are observed, get medical attention.

Section 6 – FIRE FIGHTING MEASURES

Flash Point : 275° C (527° F); COC (MIN)

Upper Flammability Limit : Not Determined

Lower Flammability Limit : Not Determined

Extinguishing Media & Fire Fighting Procedures : Carbon dioxide, dry chemical and foam or water fog Water spray can be used to cool and protect containers exposed to heat and flame. Treat as oil fire. Product will float on surface of water.

Unusual Fire & Explosive Hazards : Slightly combustible when heated above flash point. Will release flammable vapors which can burn in open or be explosive in confined spaces if exposed to ignition

Special Fire Fighting Procedures : Recommend wearing positive pressure self-contained breathing apparatus. Do not enter confined fire-space without full bunker gear (Helmet with face shield, bunker coats, gloves and rubber boots). Toxic fumes, gases or vapor may evolve on burning. Vapor may be heavier than air and may travel along the ground to a distant ignition source and flash back.

Section 7 – ACCIDENTAL RELEASE MEASURES

Steps to be taken in case material is released or spilled:

Remove sources of ignition. Immobilize with dry absorbent. Minimize skin contact. Keep product out of sewers and watercourses by drinking or impounding. Advise authorities if product has entered or may enter sewers, watercourses, or extensive land areas. Assure conformity with applicable governmental regulations.

Section 8 – HANDLING & STORAGE

Store in a cool dry location. Keep away from potential sources if ignition. Keep away from incompatible materials. Avoid breathing vapors, or prolonged or repeated skin contact. Wash Thoroughly after handling. Remove any contaminated clothing and launder before reuse.

"EMPTY" CONTAINER WARNING

"Empty" containers retain residue (semi-solid, liquid and / or vapor) and can be dangerous. **DO NOT PRESSURIZE, 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.** Do not attempt to clean since residue is difficult to remove. "Empty" drums should be completely drained or scraped clean, properly closed and promptly returned to a drums re-conditioner. All other containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.

Section 9 – EXPOSURE CONTROLS [PERSONAL PROTECTION]

EXPOSURE LIMITS

Oil Limit : ACGIH : TLV = 5mg/m^3, TLV/STEL – 10Mg /m^3

OSHA : PEL/TWA – 5mg/m^3, PEL/ Ceiling - None

Ventilation	:	Provide ventilation sufficient to prevent exceeding recommended exposure limit. Use local or mechanical exhaust to capture vapor or fumes, if necessary. No smoking, flame or other ignition sources.
Gloves	:	Use chemical resistant (high nitrite) glove to avoid prolonged or repeated skin contact
Eye Protection	:	Use splash goggles or face shield when eye contact may occur.
Respiratory	:	Under normal use conditions, respirator is not required. Use NIOSH /MSHA approved disposable DUST/ MIST mask or air purifying Respirator for organic vapors and particulates if the recommended exposure limit is exceeded. Use self- container breathing apparatus for entry into confined space, for other poorly ventilated areas and for large spill cleanup sites.
Clothing	:	Use chemical resistant boots and aprons or other impervious clothing, if needed, to avoid contaminating regular clothing. Long sleeve shirt is recommended.
Work Practices	:	Keep containers closed when not in use. Do not store near heat, sparks, flame or strong oxidants
Personal Hygiene	:	Minimize breathing vapor or fumes. Avoid prolonged or repeated contact with skin. Remove contaminated clothing; launder before reuse: discard if Oil – Soaked skin thoroughly after contact, before and meals, and at end of work period

Section 10 – STABILITY & REACTIVITY

Stability	:	Stable under normal conditions of storage and handling
Conditions to Avoid	:	Strong oxidizing or reducing agents
Polymerization	:	Will not occur
Decomposition	:	Fumes, smoke, carbon mono & dioxide, and other products of incomplete combustion. Oxides of calcium, sulfur and nitrogen may be formed.

Section 11 – TOXICOLOGICAL INFORMATION

Oral Toxicity	:	Swallowing material may cause irritation of the gastrointestinal lining, nausea, vomiting, diarrhea, and abdominal pain.
Eye Irritation	:	Not expected to cause eye irritation.
Skin Irritation	:	Not expected to be a primary skin irritant. Prolonged or repetitive contact may cause irritation.
Carcinogenic	:	This material has not been identified as a carcinogen by NTP, IARC or OSHA.

Section 12 – ECOLOGICAL INFORMATION

This material is expected to have adverse affects on marine and plant life. Spills may contaminate drinking water.

Section 13 – DISPOSAL CONSIDERATIONS

Disposal	:	Consult federal, state, and local regulations regarding disposal methods, Recycle used oil. Do not contaminate use oil with solvents or other chemicals.

Section 14 – TRANSPORATION INFORMATION

Dot Shipping Name	:	Non-Hazardous Lubricating Grease – Class 65
Dot Hazard Class	:	not regulated
UN/NA Number	:	N/A
Guide Number	:	
IMDF Code	:	

Section 15 – REGULATORY INFORMATION

TSCA	All components of this material are on the US TSCA inventory.
SARA 311	Immediate Health
SARA 312	Immediate Health
SARA 313	not listed

HMIS CODES

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Material Safety Data Sheet & Chemical Safety Data Sheet

CAL PROP 65 This material may contain traces impurities to cause cancer or birth defects or other reproductive harm.
RCRA not listed
CERCLA listed

Section 16 – OTHER INFORMATION

	Health	Fire	Reactivity	PPE
HMIS CODE:	1	1	0	
NFPA CODE:				

Precautionary Labels: NA

DISCLAIMER :
This information is based on our current knowledge and is intended to describe the product for the purpose of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of this product.

HMIS CODES	
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R	0

Material Safety Data Sheet & Chemical Safety Data Sheet

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Taman Perindustrian Puchong,
47100 Puchong, Selangor Darul Ehsan
MALAYSIA
Tel : 016 – 216 6431 Email : info@alspec.com

Issue Date : 18/11/2004

Section 1 – PRODUCT IDENTIFICATION

Product Code : GP 2
Product Name : Hi Speed Grease, Lithium
Chemical Name : Petroleum Grease
CAS# : Mixture
Common Name : Grease

Section 2 – COMPONENTS

COMPONENTS/COMMON NAME	CAS NO OF COMPONENTS	%
Lithium Hydroxide	1310-66-3	<5
12-Hydroxystearic Acid	106-14-9	<10
Hydrotreated heavy naphthenic distillate	64742-52-5	<90
Antimony dialkyldithiocarbamate	15890-25-2	<1
Dimethylbenzene (xylene)	1330-20-7	<1

Contains no other ingredients now known to be hazardous as defined by OSHA 29 CFR 1910.1000(z)

Section 3 – PHYSICAL & CHEMICAL PROPERTIES

Appearance : Blue Grease
Boiling Point : >260° C
Evaporation Point : Less than ether
Flammability : Combustible liquid
Flash Point : >160° C
Odor : petroleum odor
Ph : n/d
Solubility : negligible
Specific Gravity : .930
Vapor Density : heavier than air
Vapor Pressure : <0.01mm Hg @ 20° C
VOC, % : nil

Section 4 – HAZARD IDENTIFICATION

Principle Hazards : Slightly combustible.
Prolonged or repeated skin contact may cause dermatitis.
See section 11 for complete health hazard information.
Threshold Limits : The PEL (OSHA) and the TLV (ACGIH) is 5mg/m^3 as an oil mists.

PRIMARY ROUTES OF EXPOSURE

EYE : May cause eye irritation. No significant adverse effects expected.
SKIN : Repeated or prolonged contact with skin may cause irritation which may lead to various skin disorders. Avoid prolonged skin contact.
INHALATION : No significant adverse health effects are expected to occur on short term exposure.
ORAL : Ingestion may cause nausea, diarrhea and stomach discomfort.

Section 5 – FIRST AID MEASURES

ORAL : DO NOT INDUCE VOMITING. If conscious, give 2 glasses of water. Get immediate medical attention.
EYE : Flush with at least 15 minutes. Get medical attention if eye irritation develops or persists.
SKIN : Wash immediately with soap and water. Remove soiled clothing. Get medical attention if irritation develops. Launder contaminated clothing.

INHALATION : Remove exposed person to fresh air. If breathing is labored, administer oxygen and obtain immediate medical attention. If irritation persists or if toxic symptoms are observed, get medical attention.

Section 6 – FIRE FIGHTING MEASURES

Flash Point : >160° C (COC) >302° F
Slightly combustible, may release flammable vapors when heated above flash point

Extinguishing Media : Carbon Dioxide, Dry-Chemical or foam. Avoid using water.

Hazardous Exposure : Carbon Monoxide and Asphyxiants

Special Fire Procedures : Recommend SCBA. Use water only for cooling container. Water may cause splattering, or transport the flame.

Section 7 – ACCIDENTAL RELEASE MEASURES

Evacuate all non-essential personnel. Personal Protective Equipment must be worn, see PPE section 8 & 16. Remove sources of ignition. Prevent entry into sewers and waterways. Contained release, pick up free liquid for recycling or disposal. Residual liquid can be absorbed with inert material. Check DOT/CERCLA and other agencies for reporting requirements.

Prevent contamination to soil, waterway and sewer systems.

Section 8 – HANDLING & STORAGE

Handling : Avoid prolonged skin contact, breathing vapors, and contaminated clothing. Use with adequate ventilation. Wear recommended protective equipment. Practice good personal hygiene after handling.

Empty containers retain material residue. Do not cut, weld, braze, solder or exposed containers to other ignition sources.

Storage : Store in closed containers of proper construction. Store away from ignition sources and in areas of good ventilation.

Section 9 – EXPOSURE CONTROLS [PERSONAL PROTECTION]

Exposure Limits : TLV = 5mg/m^3 as oil mist

Ventilation : Use in areas of adequate ventilation.

Gloves : Use nitrite or neoprene gloves are recommended.

Eye Protection : Safety glasses, goggles, or face shield are recommended.

Respiratory : Self- contained breathing apparatus is recommended for confined space entry.

Clothing : Long sleeve shirt and apron when potential for skin contact. Wear neoprene or nitrite rubber boots when necessary to avoid contaminating shoes.

Section 10 – STABILITY & REACTIVITY

Stability : Material is normally stable at ambient temperature and pressure

Conditions to Avoid : Oxidizing agents. Do not heat above flash point

Polymerization : Will not occur

Decomposition : Carbon Dioxide, Carbon Monoxide.

Section 11 – TOXICOLOGICAL INFORMATION

Oral Toxicity : Swallowing material may cause irritation of the gastrointestinal lining, nausea, vomiting, diarrhea, and abdominal pain.

Eye Irritation : Not expected to cause eye irritation.

Skin Irritation : Not expected to be a primary skin irritant. Prolonged or repetitive contact may cause irritation.

Carcinogenic : This material has not been identified as a carcinogen by NTP, IARC or OSHA.

HMIS CODES

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Material Safety Data Sheet & Chemical Safety Data Sheet

Section 12 – ECOLOGICAL INFORMATION

This material is expected to have adverse affects on marine and plant life. Spills may contaminate drinking water.

Section 13 – DISPOSAL CONSIDERATIONS

Disposal : Consult federal, state, and local regulations regarding disposal methods, Recycle used oil.

Do not contaminate use oil with solvents or other chemicals.

Section 14 – TRANSPORATION INFORMATION

See 49 CFR Part : 171.8 through 178.510

Dot Shipping Name : Oil, n.o.s.
Dot Hazard Class : not regulated
UN/NA Number : N/A
Guide Number : 27
IMDF Code :

Materials classified as DOT Combustible Liquids (Flash Point > 141° F and < 200° F) are not regulated by DOT in containers of 110 gallons, or less for domestic shipments.

Section 15 – REGULATORY INFORMATION

TSCA All components of this material are on the US TSCA inventory.
SARA 311
SARA 312
SARA 313 contains <1% antimony compounds & <1% xylene
CAL PROP 65 contains benzene
RCRA not listed
CERCLA listed

Section 16 – OTHER INFORMATION

	Health	Fire	Reactivity	PPE
HMIS CODE:	1	1	0	C
NFPA CODE:	1	1	0	

Precautionary Labels: NA

DISCLAIMER :
This information is based on our current knowledge and is intended to describe the product for the purpose of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of this product.

HMIS CODES	
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Material Safety Data Sheet & Chemical Safety Data Sheet

ALSPEC INDUSTRIES SDN BHD (429187 – T)
No. 6 & 8 Jalan TPP 5/17, Seksyen 5,
Taman Perindustrian Puchong,
47100 Puchong, Selangor Darul Ehsan
MALAYSIA
Tel : 016 – 216 6431 Email : info@alspec.com

Issue Date : 19/08/2005

Section 1 – PRODUCT IDENTIFICATION

Product Code : GP 3
Product Name : Food Grade Grease (USDA H1), Aluminum Complex
Chemical Name : Petroleum Grease
CAS# : Mixture
Common Name : Grease

Section 2 – COMPONENTS

COMPONENTS/COMMON NAME	CAS NO OF COMPONENTS	%
USP White Mineral Oils, Petroleum	8042-47-5	> 80
Aluminum, Benzote Hydrogenated Tallow Fatty Acid (iso Pro-Alcohol)	Compoun68647-58-5	9 – 10
Proprietary Additives	Mixture	< 10

Contains no other ingredients now known to be hazardous as defined by OSHA 29 CFR 1910.1000(z)

Section 3 – PHYSICAL & CHEMICAL PROPERTIES

Appearance : White grease
Boiling Point : N/A
Evaporation Point : Less than ether
Flammability : N/A
Flash Point : N/A
Odor : Mild Petroleum Oil odor
Ph : n/d
Solubility : negligible
Specific Gravity : .900-.903 @ 15.6^{o}C
Vapor Density : N/A
Vapor Pressure : Negligible at Ambient
VOC, % : nil

Section 4 – HAZARD IDENTIFICATION

Principle Hazards : Slightly combustible.
Prolonged or repeated skin contact may cause dermatitis.
See section 11 for complete health hazard information.
Threshold Limits : The PEL (OSHA) and the TLV (ACGIH) is 5mg/m^3 as an oil mists.

PRIMARY ROUTES OF EXPOSURE

EYE : May cause eye irritation. No significant adverse effects expected.
SKIN : Repeated or prolonged contact with skin may cause irritation which may lead to various skin disorders. Avoid prolonged skin contact.
INHALATION : No significant adverse health effects are expected to occur on short term exposure.
ORAL : Ingestion may cause nausea, diarrhea and stomach discomfort.

Section 5 – FIRST AID MEASURES

ORAL : DO NOT INDUCE VOMITING. If conscious, give 2 glasses of water. Get immediate medical attention.
EYE : Flush with at least 15 minutes. Get medical attention if eye irritation develops or persists.
SKIN : Wash immediately with soap and water. Remove soiled clothing. Get medical attention if irritation develops. Launder contaminated clothing.
INHALATION : Remove exposed person to fresh air. If breathing is labored, administer oxygen and obtain immediate medical attention. If irritation persists or if toxic symptoms are observed, get medical attention.

Section 6 – FIRE FIGHTING MEASURES

Flash Point : >180° C (356°F)COC (MIN) ASTM D-92
Slightly combustible, may release flammable vapors when heated above flash point

Extinguishing Media : Carbon Dioxide, Dry-Chemical or foam. Avoid using water.

Hazardous Exposure : Carbon Monoxide and Asphyxiants

Special Fire Procedures : Recommend SCBA. Use water only for cooling container. Water may cause splattering, or transport the flame.

Section 7 – ACCIDENTAL RELEASE MEASURES

Evacuate all non-essential personnel. Personal Protective Equipment must be worn, see PPE section 8 & 16. Remove sources of ignition. Prevent entry into sewers and waterways. Contained release, pick up free liquid for recycling or disposal. Residual liquid can be absorbed with inert material. Check DOT/CERCLA and other agencies for reporting requirements.

Prevent contamination to soil, waterway and sewer systems.

Section 8 – HANDLING & STORAGE

Handling : Avoid prolonged skin contact, breathing vapors, and contaminated clothing. Use with adequate ventilation. Wear recommended protective equipment. Practice good personal hygiene after handling.

Empty containers retain material residue. Do not cut, weld, braze, solder or exposed containers to other ignition sources.

Storage : Store in closed containers of proper construction. Store away from ignition sources and in areas of good ventilation.

Section 9 – EXPOSURE CONTROLS [PERSONAL PROTECTION]

Exposure Limits : TLV = 5mg/m^3 as oil mist

Ventilation : Use in areas of adequate ventilation.

Gloves : Use nitrite or neoprene gloves are recommended.

Eye Protection : Safety glasses, goggles, or face shield are recommended.

Respiratory : Self- contained breathing apparatus is recommended for confined space entry.

Clothing : Long sleeve shirt and apron when potential for skin contact. Wear neoprene or nitrite rubber boots when necessary to avoid contaminating shoes.

Section 10 – STABILITY & REACTIVITY

Stability : Material is normally stable at ambient temperature and pressure

Conditions to Avoid : Oxidizing agents. Do not heat above flash point

Polymerization : Will not occur

Decomposition : Carbon Dioxide, Carbon Monoxide.

Section 11 – TOXICOLOGICAL INFORMATION

Oral Toxicity : Swallowing material may cause irritation of the gastrointestinal lining, nausea, vomiting, diarrhea, and abdominal pain.

Eye Irritation : Not expected to cause eye irritation.

Skin Irritation : Not expected to be a primary skin irritant. Prolonged or repetitive contact may cause irritation.

Carcinogenic : This material has not been identified as a carcinogen by NTP, IARC or OSHA.

HMIS CODES

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Material Safety Data Sheet & Chemical Safety Data Sheet

Section 12 – ECOLOGICAL INFORMATION

This material is expected to have adverse affects on marine and plant life. Spills may contaminate drinking water.

Section 13 – DISPOSAL CONSIDERATIONS

Disposal : Consult federal, state, and local regulations regarding disposal methods, Recycle used oil.

Do not contaminate use oil with solvents or other chemicals.

Section 14 – TRANSPORATION INFORMATION

See 49 CFR Part : 171.8 through 178.510

Dot Shipping Name : Non hazardous Lubricating Grease
Dot Hazard Class : not regulated
UN/NA Number : N/A
Guide Number :
IMDF Code :

Materials classified as DOT Combustible Liquids (Flash Point > 141° F and < 200° F) are not regulated by DOT in containers of 110 gallons, or less for domestic shipments.

Section 15 – REGULATORY INFORMATION

TSCA All components of this material are on the US TSCA inventory.
SARA 311
SARA 312
SARA 313 not listed
CAL PROP 65 not listed
RCRA not listed
CERCLA listed

Section 16 – OTHER INFORMATION

	Health	Fire	Reactivity	PPE
HMIS CODE:	0	1	0	
NFPA CODE:	0	1	0	

Precautionary Labels: NA

DISCLAIMER :
This information is based on our current knowledge and is intended to describe the product for the purpose of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of this product.

HMIS CODES	
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Material Safety Data Sheet & Chemical Safety Data Sheet

ALSPEC INDUSTRIES SDN BHD (429187 – T)
No. 6 & 8 Jalan TPP 5/17, Seksyen 5,
Taman Perindustrian Puchong,
47100 Puchong, Selangor Darul Ehsan
MALAYSIA
Tel : 016 – 216 6431 Email : info@alspec.com

Issue Date : 9/05/2005

Section 1 – PRODUCT IDENTIFICATION

Product Code : GP 4
Product Name : High Temperature Grease, Synthetic, Lithium Complex
Chemical Name : Lubricating Grease
CAS# : Mixture
Common Name : Grease

Section 2 – COMPONENTS

COMPONENTS/COMMON NAME	CAS NO OF COMPONENTS	%
Petroleum Blends	64742-57-0 & 64742-18-3	> 77
Synthetic Fluids(s)	68037-01-4	3
Lithium Carboxylate (Soap)	Compound Mixture	< 14
Proprietary Additives	Mixture	< 6

Contains no other ingredients now known to be hazardous as defined by OSHA 29 CFR 1910.1000(z)

Section 3 – PHYSICAL & CHEMICAL PROPERTIES

Appearance : Silver Green grease
Boiling Point : N/A
Evaporation Point : Negligible
Flammability : Combustible liquid
Flash Point : >235° C
Odor : petroleum oil odor
Ph : n/d
Solubility : Negligible
Specific Gravity : .877 - .889
Vapor Density : N/A
Vapor Pressure : Negligible at Ambient
VOC, % : nil

Section 4 – HAZARD IDENTIFICATION

Principle Hazards : Slightly combustible.
Prolonged or repeated skin contact may cause dermatitis.
See section 11 for complete health hazard information.
Threshold Limits : The PEL (OSHA) and the TLV (ACGIH) is 5mg/m^3 as an oil mists.

PRIMARY ROUTES OF EXPOSURE

EYE : May cause mild eye irritation. Direct exposure to vapors may cause stinging, tearing and redness. May aggravate existing conjunctivitis of the eye, based on data from components or similar materials

SKIN : Repeated or prolonged contact with skin may cause irritation which may lead to various skin disorders such as dermatitis, oil acne, or foliculitis. Avoid prolonged skin contact.

INHALATION : Inhalation of vapors or mists may be harmful. Purposely breathing high concentration of heated vapors may cause light-headedness and nausea, irritate mucosal membranes of mouth, nose, and throat; and aggravate existing respiratory diseases

ORAL : Ingestion via minor contamination on fingers or food is not likely to cause significant discomfort or adverse affects. Gross amounts may cause irritation of the digestive tract (due to product consistency), nausea and vomiting. Aspiration into the lungs during ingestion or vomiting may cause mild to severe pulmonary injury.

Section 5 – FIRST AID MEASURES

ORAL : DO NOT INDUCE VOMITING. If conscious, give 2 glasses of water. Get immediate medical attention.

EYE : Flush with at least 15 minutes. Get medical attention if eye irritation develops or persists.

SKIN : Wash immediately with soap and water. Remove soiled clothing. Get medical attention if irritation develops. Launder contaminated clothing.

INHALATION : Remove exposed person to fresh air. If breathing is labored, administer oxygen and obtain immediate medical attention. If irritation persists or if toxic symptoms are observed, get medical attention.

Section 6 – FIRE FIGHTING MEASURES

Flash Point : >235° C (455° F) COC (MIN)
Slightly combustible, may release flammable vapors when heated above flash point

Extinguishing Media : Carbon Dioxide, dry chemical or foam. Water spray can be used to cool and protect containers exposed to heat and flame.

Hazardous Exposure : Will release flammable vapors which can burn in open or be explosive in confined spaces if exposed to ignition

Special Fire Procedures : Recommend SCBA. Use water only for cooling container. Water may cause splattering, or transport the flame.

Section 7 – ACCIDENTAL RELEASE MEASURES

Evacuate all non-essential personnel. Personal Protective Equipment must be worn, see PPE section 8 & 16. Remove sources of ignition. Prevent entry into sewers and waterways. Contained release, pick up free liquid for recycling or disposal. Residual liquid can be absorbed with inert material. Check DOT/CERCLA and other agencies for reporting requirements.

Prevent contamination to soil, waterway and sewer systems.

Section 8 – HANDLING & STORAGE

Handling : Avoid prolonged skin contact, breathing vapors, and contaminated clothing. Use with adequate ventilation. Wear recommended protective equipment. Practice good personal hygiene after handling.

Empty containers retain material residue. Do not cut, weld, braze, solder or exposed containers to other ignition sources.

Storage : Store in closed containers of proper construction. Store away from ignition sources and in areas of good ventilation.

Section 9 – EXPOSURE CONTROLS [PERSONAL PROTECTION]

Exposure Limits : TLV = 5mg/m^3 as oil mist

Ventilation : Use in areas of adequate ventilation.

Gloves : Use nitrite or neoprene gloves are recommended.

Eye Protection : Safety glasses, goggles, or face shield are recommended.

Respiratory : Self- contained breathing apparatus is recommended for confined space entry.

Clothing : Long sleeve shirt and apron when potential for skin contact. Wear neoprene or nitrite rubber boots when necessary to avoid contaminating shoes.

Section 10 – STABILITY & REACTIVITY

Stability : Material is normally stable at ambient temperature and pressure

Conditions to Avoid : Oxidizing agents. Do not heat above flash point

Polymerization : Will not occur

Decomposition : Carbon Dioxide, Carbon Monoxide.

Section 11 – TOXICOLOGICAL INFORMATION

Oral Toxicity : Swallowing material may cause irritation of the gastrointestinal lining, nausea, vomiting, diarrhea, and abdominal pain.
Eye Irritation : Not expected to cause eye irritation.
Skin Irritation : Not expected to be a primary skin irritant. Prolonged or repetitive contact may cause irritation.
Carcinogenic : This material has not been identified as a carcinogen by NTP, IARC or OSHA.

Section 12 – ECOLOGICAL INFORMATION

This material is expected to have adverse affects on marine and plant life. Spills may contaminate drinking water.

Section 13 – DISPOSAL CONSIDERATIONS

Disposal : Consult federal, state, and local regulations regarding disposal methods, Recycle used oil.

Do not contaminate use oil with solvents or other chemicals.

Section 14 – TRANSPORATION INFORMATION

See 49 CFR Part : 171.8 through 178.510

Dot Shipping Name : Lubricating Grease – Class 65
Dot Hazard Class : not regulated
UN/NA Number : N/A
Guide Number :
IMDF Code :

Materials classified as DOT Combustible Liquids (Flash Point > 141° F and < 200° F) are not regulated by DOT in containers of 110 gallons, or less for domestic shipments.

Section 15 – REGULATORY INFORMATION

TSCA All components of this material are on the US TSCA inventory.
SARA 311 Immediate Health
SARA 312 Immediate Health
SARA 313 not listed
CAL PROP 65 not listed
RCRA not listed
CERCLA not listed

Section 16 – OTHER INFORMATION

	Health	Fire	Reactivity	PPE
HMIS CODE:	1	1	0	
NFPA CODE:	1	1	0	B

Precautionary Labels: NA

DISCLAIMER :
This information is based on our current knowledge and is intended to describe the product for the purpose of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of this product.

HMIS CODES

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P.P	C
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Material Safety Data Sheet & Chemical Safety Data Sheet

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47100 Puchong, Selangor Darul Ehsan
MALAYSIA
Tel : 016 – 216 6431 Email : info@alspec.com

Issue Date : 9/05/2005

Section 1 – PRODUCT IDENTIFICATION

Product Code : GP 5
Product Name : Multi Purpose Grease, Lithium Complex
Chemical Name : Petroleum Grease
CAS# : Mixture
Common Name : Grease

Section 2 – COMPONENTS

COMPONENTS/COMMON NAME	CAS NO OF COMPONENTS	%
Petroleum Blends	Cas#64741-96-4 & 94742-52-5	> 77.0
Lithium Carboxylate (Soap)	Compound Mixture	< 10.0
Proprietary Additives	Mixture	< 6.0

Contains no other ingredients now known to be hazardous as defined by OSHA 29 CFR 1910.1000(z)

Section 3 – PHYSICAL & CHEMICAL PROPERTIES

Appearance : Green grease
Boiling Point : > 300° C
Evaporation Point : Less than ether
Flammability : Combustible liquid
Flash Point : >200° C
Odor : petroleum odor
Ph : n/d
Solubility : negligible
Specific Gravity : .929
Vapor Density : heavier than air
Vapor Pressure : <0.01mm Hg @ 20° C
VOC, % : nil

Section 4 – HAZARD IDENTIFICATION

Principle Hazards : Slightly combustible.
Prolonged or repeated skin contact may cause dermatitis.
See section 11 for complete health hazard information.
Threshold Limits : The PEL (OSHA) and the TLV (ACGIH) is 5mg/m^3 as an oil mists.

PRIMARY ROUTES OF EXPOSURE

EYE : May cause eye irritation. No significant adverse effects expected.
SKIN : Repeated or prolonged contact with skin may cause irritation which may lead to various skin disorders. Avoid prolonged skin contact.
INHALATION : No significant adverse health effects are expected to occur on short term exposure.
ORAL : Ingestion may cause nausea, diarrhea and stomach discomfort.

Section 5 – FIRST AID MEASURES

ORAL : DO NOT INDUCE VOMITING. If conscious, give 2 glasses of water. Get immediate medical attention.
EYE : Flush with at least 15 minutes. Get medical attention if eye irritation develops or persists.
SKIN : Wash immediately with soap and water. Remove soiled clothing. Get medical attention if irritation develops. Launder contaminated clothing.
INHALATION : Remove exposed person to fresh air. If breathing is labored, administer oxygen and obtain immediate medical attention. If irritation persists or if toxic symptoms are observed, get medical attention.

Section 6 – FIRE FIGHTING MEASURES

Flash Point : >235° C (COC) >455° F
Slightly combustible, may release flammable vapors when heated above flash point

Extinguishing Media : Carbon Dioxide, Dry-Chemical or foam. Avoid using water.

Hazardous Exposure : Carbon Monoxide and Asphyxiants

Special Fire Procedures : Recommend SCBA. Use water only for cooling container. Water may cause splattering, or transport the flame.

Section 7 – ACCIDENTAL RELEASE MEASURES

Evacuate all non-essential personnel. Personal Protective Equipment must be worn, see PPE section 8 & 16. Remove sources of ignition. Prevent entry into sewers and waterways. Contained release, pick up free liquid for recycling or disposal. Residual liquid can be absorbed with inert material. Check DOT/CERCLA and other agencies for reporting requirements.

Prevent contamination to soil, waterway and sewer systems.

Section 8 – HANDLING & STORAGE

Handling : Avoid prolonged skin contact, breathing vapors, and contaminated clothing. Use with adequate ventilation. Wear recommended protective equipment. Practice good personal hygiene after handling.

Empty containers retain material residue. Do not cut, weld, braze, solder or exposed containers to other ignition sources.

Storage : Store in closed containers of proper construction. Store away from ignition sources and in areas of good ventilation.

Section 9 – EXPOSURE CONTROLS [PERSONAL PROTECTION]

Exposure Limits : TLV = 5mg/m^3 as oil mist

Ventilation : Use in areas of adequate ventilation.

Gloves : Use nitrite or neoprene gloves are recommended.

Eye Protection : Safety glasses, goggles, or face shield are recommended.

Respiratory : Self- contained breathing apparatus is recommended for confined space entry.

Clothing : Long sleeve shirt and apron when potential for skin contact. Wear neoprene or nitrite rubber boots when necessary to avoid contaminating shoes.

Section 10 – STABILITY & REACTIVITY

Stability : Material is normally stable at ambient temperature and pressure

Conditions to Avoid : Oxidizing agents. Do not heat above flash point

Polymerization : Will not occur

Decomposition : Carbon Dioxide, Carbon Monoxide.

Section 11 – TOXICOLOGICAL INFORMATION

Oral Toxicity : Swallowing material may cause irritation of the gastrointestinal lining, nausea, vomiting, diarrhea, and abdominal pain.

Eye Irritation : Not expected to cause eye irritation.

Skin Irritation : Not expected to be a primary skin irritant. Prolonged or repetitive contact may cause irritation.

Carcinogenic : This material has not been identified as a carcinogen by NTP, IARC or OSHA.

Section 12 – ECOLOGICAL INFORMATION

This material is expected to have adverse affects on marine and plant life. Spills may contaminate drinking water.

Section 13 – DISPOSAL CONSIDERATIONS

Disposal : Consult federal, state, and local regulations regarding disposal methods, Recycle used oil.

Do not contaminate use oil with solvents or other chemicals.

Section 14 – TRANSPORATION INFORMATION

See 49 CFR Part : 171.8 through 178.510

Dot Shipping Name : Oil, n.o.s.
Dot Hazard Class : not regulated
UN/NA Number : N/A
Guide Number : 27
IMDF Code :

Materials classified as DOT Combustible Liquids (Flash Point > 141° F and < 200° F) are not regulated by DOT in containers of 110 gallons, or less for domestic shipments.

Section 15 – REGULATORY INFORMATION

TSCA All components of this material are on the US TSCA inventory.
SARA 311
SARA 312
SARA 313 contains <25 ppm antimony dialkyldithiocarbamate
<2 ppm dimethylbenzene (xylene)
CAL PROP 65 not listed
RCRA not listed
CERCLA listed

Section 16 – OTHER INFORMATION

	Health	Fire	Reactivity	PPE
HMIS CODE:	1	1	0	C
NFPA CODE:	1	1	0	

Precautionary Labels: NA

DISCLAIMER :
This information is based on our current knowledge and is intended to describe the product for the purpose of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of this product.