



MATERIAL SAFETY DATA SHEET

1. Chemical product and company identification

A. Product name	5-56® Multi-Purpose Lubricant
Product code	05004K
B. Recommended use and Limitations on use	
Recommended use	Multi-purpose lubricant
C. Supplier information	
Company name	CRC Industries, Inc.
Address	885 Louis Dr. Warminster, PA 18974 US
Telephone	
General Information	215-674-4300
Technical Assistance	800-521-3168
Customer Service	800-272-4620
24-Hour Emergency (CHEMTREC)	800-424-9300 (US) 703-527-3887 (International)
Website	www.crcindustries.com

2. Hazards identification

A. Hazard category/Classification

Physical hazards	Flammable aerosols	Category 1
	Gases under pressure	Liquefied gas
Health hazards	Aspiration hazard	Category 1
Environmental hazards	Not classified.	
Other hazards which do not result in classification	Not classified.	

B. Warning label items including precautionary statement

• Pictogram



• Signal word

Danger

• Hazard statement

H222	Extremely flammable aerosol.
H280	Contains gas under pressure; may explode if heated.
H304	May be fatal if swallowed and enters airways.

• Precautionary statement

Prevention

P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P211	Do not spray on an open flame or other ignition source.
P251	Pressurized container: Do not pierce or burn, even after use.

Response

P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P331	Do NOT induce vomiting.

Storage

P405	Store locked up.
P410 + P403	Protect from sunlight. Store in a well-ventilated place.
P410 + P412	Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

Disposal

P501	Dispose of contents/container in accordance with local/regional/national/international regulations.
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C. Other hazards not included in the hazard category criteria (e.g. dust explosion hazard)

None known.

3. Composition/information on ingredients

Chemical identity	Common and alternative names	CAS number	ID number	Content in percent (%)
distillates (petroleum), hydrotreated light		64742-47-8	KE-12550	50 - 55
liquefied petroleum gas		68476-85-7	KE-28191	25 - 30
paraffin oils (petroleum), catalytic dewaxed heavy		64742-70-7	KE-27774	5 - 10
butyl stearate		123-95-5	KE-26345	1 - 5
sorbitan monooleate		1338-43-8	KE-31689	1 - 5
methyl salicylate		119-36-8	KE-20378	0.3 - 5
paraffin oils (petroleum), catalytic dewaxed light		64742-71-8	KE-27775	0.1 - 5
1,3-butadiene		106-99-0	KE-03719, 2014-1-693	< 0.1

4. First aid measures

A. In case of eye contact	Rinse with water. Get medical attention if irritation develops and persists.
B. In case of skin contact	Wash off with soap and water. Get medical attention if irritation develops and persists.
C. In case of inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
D. In case of swallowing	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
E. Note to physician	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
General advice	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

A. Suitable (and unsuitable) extinguishing media	
Suitable extinguishing media	Water fog. Alcohol resistant foam. Dry chemical powder. Dry chemicals. Carbon dioxide (CO ₂).
Unsuitable extinguishing media	None known.
B. Specific hazards arising from the chemical (example: hazardous combustion products)	Contents under pressure. Pressurized container may explode when exposed to heat or flame. During fire, gases hazardous to health may be formed.
C. Specific methods of fire-fighting	
Special protective equipment for firefighters	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.
Special fire fighting procedures	Move containers from fire area if you can do so without risk. Cool containers exposed to heat with water spray and remove container, if no risk is involved. Containers should be cooled with water to prevent vapor pressure build up. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.
General fire hazards	Extremely flammable aerosol. Combustible. Contents under pressure. Pressurized container may explode when exposed to heat or flame.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials. In the event of fire and/or explosion do not breathe fumes.

6. Accidental release measures

A. Personal precautions, protective equipment and emergency measures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks). Wear appropriate protective equipment and clothing during clean-up. Emergency personnel need self-contained breathing equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the MSDS.
B. Environmental precautions	Avoid discharge into drains, water courses or onto the ground.

C. Methods and materials for containment and cleaning up

Stop leak if you can do so without risk. Use water spray to reduce vapors or divert vapor cloud drift. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. This product is miscible in water. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. For waste disposal, see section 13 of the MSDS.

7. Handling and storage

A. Precautions for safe handling

Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. All equipment used when handling the product must be grounded. Do not re-use empty containers. Avoid prolonged or repeated contact with skin. Avoid prolonged exposure. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices.

B. Conditions for safe storage (including any incompatibilities)

Level 3 Aerosol.

Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122 °F. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the MSDS).

8. Exposure controls/personal protection

A. Exposure limit values, biological limit values, etc

Korea. OELs. Standards for Exposure to Chemical Substances and Physically Hazardous Factors

Components	Type	Value
distillates (petroleum), hydrotreated light (CAS 64742-47-8)	TWA	200 mg/m3
liquefied petroleum gas (CAS 68476-85-7)	TWA	1800 mg/m3
		1000 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
butyl stearate (CAS 123-95-5)	TWA	10 mg/m3	
paraffin oils (petroleum), catalytic dewaxed heavy (CAS 64742-70-7)	TWA	5 mg/m3	Inhalable fraction.
paraffin oils (petroleum), catalytic dewaxed light (CAS 64742-71-8)	TWA	5 mg/m3	Inhalable fraction.

Biological limit values No biological exposure limits noted for the ingredient(s).

Exposure guidelines

Korea OELs: Skin designation

distillates (petroleum), hydrotreated light (CAS 64742-47-8) Substance can be absorbed through membrane, eye and skin and can cause whole body effects (It does not mean skin irritant).

B. Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

C. Personal protective equipment

- **Respiratory protection** If engineering controls are not feasible or if exposure exceeds the applicable exposure limits, use a NIOSH-approved cartridge respirator with an organic vapor cartridge. Use a self-contained breathing apparatus in confined spaces and for emergencies.
- **Eye protection** Wear safety glasses with side shields (or goggles).
- **Hand protection** Wear protective gloves such as: Nitrile. Neoprene.
- **Body protection** Wear suitable protective clothing.

Hygiene measures

When using do not smoke. 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.

9. Physical and chemical properties

A. Appearance

Physical state	Liquid.
Form	Aerosol.
Color	Light amber.

B. Odor

Pleasant.

C. Odor threshold

Not available.

D. pH

Not available.

E. Melting point/freezing point

Not available.

F. Boiling point, initial boiling point, and boiling range

212 °F (100 °C) estimated

G. Flash point

145 °F (62.8 °C) Tag Closed Cup

H. Evaporation rate

Not available.

I. Flammability (solid, gas)

Not available.

J. Upper/lower limit on flammability or explosive limits

Flammability limit - lower (%) 0.5 % estimated

Flammability limit - upper (%) 5.5 % estimated

Explosive limit - lower (%) Not available.

Explosive limit - upper (%) Not available.

K. Vapor pressure

1230.4 hPa estimated

L. Solubility

Solubility (water) Negligible.

M. Vapor density

> 1 (air = 1)

N. Specific gravity

0.8

O. n-octanol/water partition coefficient

Not available.

P. Auto-ignition temperature

410 °F (210 °C) estimated

Q. Decomposition temperature

Not available.

R. Viscosity

Not available.

S. Molecular weight

Not available.

Other data

Percent volatile 83 % estimated

10. Stability and reactivity

Reactivity The product is stable and non-reactive under normal conditions of use, storage and transport.

A. Stability and hazardous reaction potential

Stability Material is stable under normal conditions.

Hazardous reaction potential No dangerous reaction known under conditions of normal use.

B. Conditions to avoid (e.g. static discharge, shock or vibration, etc)

Heat. Avoid temperatures exceeding the flash point. Contact with incompatible materials.

C. Incompatible materials

Strong oxidizing agents. Chlorine.

D. Hazardous decomposition products

Carbon oxides. Sulfur oxides. Hydrocarbons.

11. Toxicological information

A. Information on likely routes of exposure

• **Respiratory organs** Prolonged inhalation may be harmful.

• **Skin** Prolonged skin contact may cause temporary irritation.

• **Eyes** Direct contact with eyes may cause temporary irritation.

• **Mouth** Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.

B. Information on health hazards

- **Acute toxicity (list all possible routes of exposure)** May be fatal if swallowed and enters airways.

Components	Species	Test Results
butyl stearate (CAS 123-95-5)		
<u>Acute</u>		
Oral		
LD50	Rat	32 g/kg
distillates (petroleum), hydrotreated light (CAS 64742-47-8)		
<u>Acute</u>		
Dermal		
LD50	Rat	> 2000 mg/kg
Inhalation		
LC50	Rat	> 5.2 mg/l, 4 hours
Oral		
LD50	Rat	> 5000 mg/kg, 2.5 hours
methyl salicylate (CAS 119-36-8)		
<u>Acute</u>		
Oral		
LD50	Rat	0.887 g/kg
paraffin oils (petroleum), catalytic dewaxed heavy (CAS 64742-70-7)		
<u>Acute</u>		
Dermal		
LD50	Rabbit	> 2000 mg/kg
Oral		
LD50	Rat	> 5000 mg/kg
paraffin oils (petroleum), catalytic dewaxed light (CAS 64742-71-8)		
<u>Acute</u>		
Dermal		
LD50	Rabbit	> 2000 mg/kg
Oral		
LD50	Rat	> 5000 mg/kg
sorbitan monooleate (CAS 1338-43-8)		
<u>Acute</u>		
Dermal		
LD50	Rabbit	> 2000 mg/kg
Inhalation		
LC50	Rat	> 20 mg/l, 4 hours
Oral		
LD50	Rat	39800 mg/kg
• Corrosivity or irritation to the skin	Prolonged skin contact may cause temporary irritation.	
• Serious eye damage/eye irritation	Direct contact with eyes may cause temporary irritation.	
• Respiratory sensitization	Not a respiratory sensitizer.	
• Skin sensitization	This product is not expected to cause skin sensitization.	
• Carcinogenic properties /Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.	
IARC Monographs. Overall Evaluation of Carcinogenicity		
paraffin oils (petroleum), catalytic dewaxed light (CAS 64742-71-8)	3	Not classifiable as to carcinogenicity to humans.
• Mutagenic properties /Mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.	
• Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.	

- **Specific target organ toxicity - single exposure** Not classified.
- **Specific target organ toxicity - repeated exposure** Not classified.
- **Aspiration hazard** May be fatal if swallowed and enters airways.

12. Ecological information

A. Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components	Species	Test Results
distillates (petroleum), hydrotreated light (CAS 64742-47-8)		
Aquatic		
<i>Acute</i>		
Fish	LC50	Fathead minnow (<i>Pimephales promelas</i>) 45 mg/l, 96 hours
paraffin oils (petroleum), catalytic dewaxed light (CAS 64742-71-8)		
Aquatic		
<i>Acute</i>		
Crustacea	EC50	Daphnia > 100 mg/l, 48 hours
sorbitan monooleate (CAS 1338-43-8)		
Aquatic		
<i>Acute</i>		
Fish	LC50	Rainbow trout, donaldson trout (<i>Oncorhynchus mykiss</i>) > 1000 mg/l, 96 hours

Hazardous to the aquatic environment, acute hazard The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Hazardous to the aquatic environment, long-term hazard Not available.

B. Persistence/degradability No data is available on the degradability of this product.

C. Bioaccumulative potential

Octanol/water partition coefficient log Kow
methyl salicylate 2.55

D. Mobility in soil This product is miscible in water.

E. Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

A. Method of disposal Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not puncture, incinerate or crush. Contents under pressure. Dispose in accordance with all applicable regulations. Dispose of contents/container (in accordance with related regulations).

B. Disposal considerations (including disposal of contaminated containers or packaging) Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

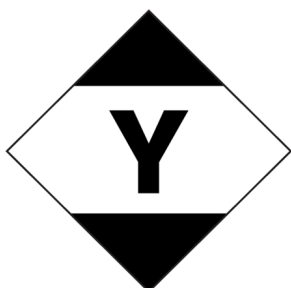
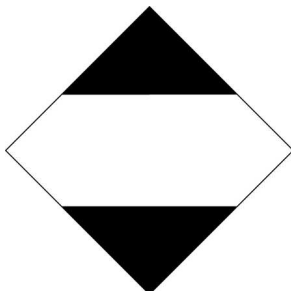
14. Transport information

IATA

A. UN number	UN1950
B. UN proper shipping name	Aerosols, flammable, Limited Quantity
C. Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
D. Packing group	Not applicable.
E. Environmental hazards	No.
ERG Code	10L
F. Special precautions for user	Read safety instructions, MSDS and emergency procedures before handling.
Other information	
Passenger and cargo aircraft	Allowed with restrictions.
Cargo aircraft only	Allowed with restrictions.

IMDG

A. UN number	UN1950
B. UN proper shipping name	AEROSOLS, Limited Quantity
C. Transport hazard class(es)	
Class	2
Subsidiary risk	-
D. Packing group	Not applicable.
E. Environmental hazards	
Marine pollutant	No.
EmS	Not applicable.
F. Special precautions for user	Read safety instructions, MSDS and emergency procedures before handling.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not established.

IATA**IMDG**

15. Regulatory information**A. Restrictions under the Industrial Safety and Health Law****Harmful Substances Prohibited from Manufacturing**

Not regulated.

Harmful Substances Requiring Permission for Manufacture or Use

Not regulated.

Controlled Hazardous Substances

Not regulated.

Harmful Substances Requiring Special Medical Examination

Not regulated.

Workplace Environmental Monitoring Harmful Materials

Not regulated.

Occupational Exposure Limitdistillates (petroleum), hydrotreated light (CAS 64742-47-8)
liquefied petroleum gas (CAS 68476-85-7)**B. Restrictions under the Toxic Chemicals Control Law****Accidental Release Prevention Substances**

Not regulated.

Observational Chemicals (Revoked)

Not regulated.

C. Restrictions under the Dangerous Substance Safety Management Act**D. Restrictions under the Wastes Control Act****Halogenated Materials in Waste Organic Solvents**

Not regulated.

Hazardous Substances

Not regulated.

E. Restrictions under other foreign or domestic laws

Clean Air Conservation Act

Air Pollutants

liquefied petroleum gas (CAS 68476-85-7)
paraffin oils (petroleum), catalytic dewaxed heavy (CAS 64742-70-7)
paraffin oils (petroleum), catalytic dewaxed light (CAS 64742-71-8)

Specific Air Pollutants

Not regulated.

Act on the Registration and Evaluation of Chemicals

Banned Toxic Chemicals

Not regulated.

Designated Existing Chemicals Subject to Registration (PEC) (MoE No. 2015-92)

Not listed.

Restricted Chemical Substances

Not regulated.

Toxic Chemicals

Not regulated.

Further information

This material safety data sheet was prepared in accordance with Article 41 of the Industrial Safety and Health Law.

Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Korea	Existing Chemicals List (ECL)	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information

A. Source of information

ACGIH
EPA: ACQUIRE database
NLM: Hazardous Substances Data Base
US. IARC Monographs on Occupational Exposures to Chemical Agents
Korea. Accidental Release Prevention Substances (Presidential Decree of Toxic Chemical Control Law, Executive Order No. 19203)
Korea. Dangerous Substances Threshold Quantity (Presidential Decree of Dangerous Substances Safety Management Act No. 18406, Schedule 1)
Korea. Harmful Substances Prohibited from Manufacturing (Presidential Decree on the Industrial Safety and Health Act (No. 13053), Article 29)
Korea. Harmful Substances Requiring Permission for Manufacture or Use (Presidential Decree on the Industrial Safety and Health Act (No. 13053), Article 30)
Korea. Non-Toxic Chemicals List (National Institute of Environment Research (NIER) Public Notice No. 1997-10, as amended)
Korea. Observational Chemicals (Ministerial Decree of TCCL Article 6)
Korea. OELs. Regulation for Permitted Concentration of Hazardous Substances (Ministry of Labor (MOL) Public Notice No. 1986-45, as amended)
Korea. Prohibited Chemical Substances (TCCL Article 11)
Korea. Regulated volatile organic compounds (VOCs) (MOE Notice No. 2001-36, March 8, 2001, as amended)
Korea. Restricted Chemical Substances (TCCL Article 11)
Korea. Toxic Chemical Control Law (TCCL), Existing Chemicals Inventory (KECI)
Korea. Toxic Chemical Control Law (TCCL), pre-1997 List
Korea. Toxic Chemicals (TCCL Article 10)
Korea. Toxic Release Inventory (TRI) Chemicals (TCCL Article 14)

B. Issue date

02-27-2015

C. Number of revisions and date of most recent revision

10-24-2016 (03 revision)

D. Other

Not available.

Disclaimer

CRC Industries, Inc. cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.

Revision Information

Composition / Information on Ingredients: Ingredients
Physical & Chemical Properties: Multiple Properties
Toxicological Information: Toxicological Data
Ecological Information: Ecotoxicity
Transport Information: Material Transportation Information
GHS: Classification