

Safety Data Sheet

HEAVY DUTY WHITE LITHIUM GREASE

Version 2.0

Revision Date 06/11/2015

Print Date 06/13/2015

SECTION 1. IDENTIFICATION

Commercial Product Name : HEAVY DUTY WHITE LITHIUM GREASE
Product number : 18931041
SDS-Identcode : 10048335
Product Use Description : Anti-friction agent and lubricant
Company : Wurth USA Inc.
93 Grant St.
07446 Ramsey, NJ
USA
Telephone : +1 201 825 27 10
Telefax : +1 201 825 16 43
Responsible/issuing person : prodsafe@wuerth.com
Emergency telephone number : +1 800 255 3924

SECTION 2. HAZARDS IDENTIFICATION**GHS Classification**

Flammable aerosols : Category 1
Gases under pressure : Liquefied gas
Skin irritation : Category 2
Specific target organ toxicity - single exposure : Category 3 (Central nervous system)

GHS Label element

Hazard pictograms :



Signal word : Danger

Hazard statements : H222 Extremely flammable aerosol.
H280 Contains gas under pressure; may explode if heated.
H315 Causes skin irritation.

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H336 May cause drowsiness or dizziness.

Precautionary statements : **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.
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P264 Wash skin thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves.
Response:
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell.
P332 + P313 If skin irritation occurs: Get medical advice/ attention.
P362 Take off contaminated clothing and wash before reuse.
Storage:
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.
P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F.
Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS-No.	Weight percent- Weight percent
n-heptane	142-82-5	>= 30 - < 50
petroleum gases, liquefied	68476-85-7	>= 30 - < 50
distillates (petroleum), solvent-dewaxed heavy paraffinic	64742-65-0	>= 10 - < 20
Residual oils (petroleum), solvent-dewaxed	64742-62-7	>= 5 - < 10

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lithium 12-hydroxystearate	7620-77-1	$\geq 1 - < 5$
Titanium dioxide	13463-67-7	$\geq 0.1 - < 1$

SECTION 4. FIRST AID MEASURES

- General advice : If you feel unwell, seek medical advice (show the label where possible). First aider needs to protect himself. Move out of dangerous area. Never give anything by mouth to an unconscious person. Take off contaminated clothing and shoes immediately.
- Inhalation : If breathed in, move person into fresh air. In the case of inhalation of aerosol/mist consult a physician if necessary. Keep patient warm and at rest. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.
- Skin contact : In case of contact, immediately flush skin with soap and plenty of water. Do NOT use solvents or thinners. If skin irritation persists, call a physician.
- Eye contact : Protect unharmed eye. If easy to do, remove contact lens, if worn. In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- Ingestion : If swallowed, seek medical advice immediately and show this container or label. If swallowed, DO NOT induce vomiting. If a person vomits when lying on his back, place him in the recovery position.

Notes to physician

- Treatment : Treat symptomatically and supportively.

SECTION 5. FIREFIGHTING MEASURES

- Form : Aerosol containing a liquefied gas
- Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- Unsuitable extinguishing media : High volume water jet

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- Specific hazards during firefighting : Do not use a solid water stream as it may scatter and spread fire.
Hazardous decomposition products may be formed under fire conditions (see section 10).
Exposure to decomposition products may be a hazard to health.
- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.
Use personal protective equipment.
- Further information : Standard procedure for chemical fires.
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
In the event of fire and/or explosion do not breathe fumes.
Use water spray to cool unopened containers.
Collect contaminated fire extinguishing water separately.
This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
If the temperature rises there is danger of the vessels bursting due to the high vapor pressure.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions : Refer to protective measures listed in sections 7 and 8.
Use personal protective equipment.
Remove all sources of ignition.
Avoid contact with skin and eyes.
Ensure adequate ventilation, especially in confined areas.
Contaminated surfaces will be extremely slippery.
Immediately evacuate personnel to safe areas.
Avoid inhalation of vapour or mist.
Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
- Environmental precautions : Do not flush into surface water or sanitary sewer system.
Prevent further leakage or spillage if safe to do so.

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If the product contaminates rivers and lakes or drains inform respective authorities.

Avoid release to the environment. Refer to special instructions/ Safety data sheets.

Methods for cleaning up : Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations.
Clean contaminated surface thoroughly.

SECTION 7. HANDLING AND STORAGE

Handling

Handling : For personal protection see section 8.
Limit the stocks at work place.
Use only in well-ventilated areas.
Do not breathe vapours or spray mist.
Avoid contact with skin and eyes.
Do not spray on a naked flame or any incandescent material.
Prevent the creation of flammable or explosive concentrations of vapour in air and avoid vapour concentration higher than the occupational exposure limits.
Take precautionary measures against static discharges.
Use appropriate container to avoid environmental contamination.
Do not carry cloths that have come into contact with the product in your clothing.

Advice on protection against fire and explosion : Normal measures for preventive fire protection.
Vapours are heavier than air and may spread along floors.
Vapours may form explosive mixtures with air.
Keep away from heat and sources of ignition.
Do not smoke.
No sparking tools should be used.
Electrical equipment should be protected to the appropriate standard.

Dust explosion class : Not applicable

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Storage

- Requirements for storage areas and containers : Store in original container.
 BEWARE: Aerosol is pressurized. Keep away from direct sun exposure and temperatures over 50 °C. Do not open by force or throw into fire even after use. Do not spray on flames or red-hot objects.
 Keep containers tightly closed in a dry, cool and well-ventilated place.
 Please observe the storage instructions for aerosols!
- Advice on common storage : Incompatible with oxidizing agents.
 Keep away from food, drink and animal feedingstuffs.
 Do not store together with oxidizing and self-igniting products.
- Storage temperature : < 40 °C (< 104 °F)
- Other data : No decomposition if stored and applied as directed.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
Exposure Guidelines

Components	CAS-No.	List	Type:	Value	Update
n-heptane	142-82-5	NIOSH REL	TWA	85 ppm 350 mg/m ³	2013-10-08
		NIOSH REL	C	440 ppm 1,800 mg/m ³	2013-10-08
		OSHA Z-1	TWA	500 ppm 2,000 mg/m ³	1997-08-04
		ACGIH	TWA	400 ppm	2013-03-01
		ACGIH	STEL	500 ppm	2013-03-01
		OSHA P0	TWA	400 ppm 1,600 mg/m ³	1989-01-19
		OSHA P0	STEL	500 ppm 2,000 mg/m ³	1989-01-19
petroleum gases, liquefied	68476-85-7	NIOSH REL	TWA	1,000 ppm 1,800 mg/m ³	2013-10-08
		OSHA Z-1	TWA	1,000 ppm 1,800 mg/m ³	2007-01-01

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distillates (petroleum), solvent-dewaxed heavy paraffinic	64742-65-0	OSHA Z-1	TWA	5 mg/m3	2011-07-01
		ACGIH	TWA	5 mg/m3	2013-03-01
		NIOSH REL	TWA	5 mg/m3	2013-10-08
		NIOSH REL	ST	10 mg/m3	2013-10-08
Residual oils (petroleum), solvent-dewaxed	64742-62-7	OSHA Z-1	TWA	5 mg/m3	2011-07-01
		ACGIH	TWA	5 mg/m3	2013-03-01
		NIOSH REL	TWA	5 mg/m3	2013-10-08
		NIOSH REL	ST	10 mg/m3	2013-10-08
lithium 12-hydroxystearate	7620-77-1	ACGIH	TWA	10 mg/m3	2013-03-01

Engineering measures : Provide sufficient air exchange and/or exhaust in work rooms.

Eye protection : Tightly fitting safety goggles

Hand protection

Glove material : Neoprene gloves
Nitrile rubber

Choose gloves to protect hands against chemicals depending on the concentration and quantity of the hazardous substance and specific to place of work. For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer.

Skin and body protection : Flame retardant antistatic protective clothing.
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Respiratory protection : When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
Product contains low-boiling liquids. Respiratory protective equipment must be air supplied respirators.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.
General industrial hygiene practice.
Do not inhale aerosol.
Avoid contact with skin, eyes and clothing.

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When using do not eat, drink or smoke.
Wash hands before breaks and at the end of workday.
Follow the skin protection plan.
Wash contaminated clothing before re-use.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Form	: Aerosol containing a liquefied gas
Physical state	: aerosol
Colour	: white
Odour	: mild
Odour Threshold	: No data available
Flash point	: No data available
Ignition temperature	: No data available
Thermal decomposition	: No data available
Lower explosion limit	: No data available
Upper explosion limit	: No data available
Flammability	: Flammable
Molecular weight	: No data available
pH	: Not applicable
Vapour pressure	: No data available
Relative vapour density	: >1 (Air = 1.0)
Evaporation rate	: No data available
Density	: 0.75 g/cm ³ at 15 °C (59 °F)
Relative density	: No data available
Bulk density	: No data available
Water solubility	: insoluble
Partition coefficient: n-octanol/water	: No data available
Solubility in other solvents	: No data available
Viscosity, dynamic	: No data available
Viscosity, kinematic	: > 14 mm ² /s

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Volatile organic compounds (VOC) content : 80 %
511.5 g/l

SECTION 10. STABILITY AND REACTIVITY

Conditions to avoid : Heat, flames and sparks.

Materials to avoid : Strong oxidizing agents

Hazardous decomposition products : Carbon oxides
Nitrogen oxides (NOx)
Sulphur oxides
Oxides of phosphorus

Build-up of dangerous/toxic fumes possible in cases of fire/high temperature.

Hazardous reactions : Note: No decomposition if stored and applied as directed.

Vapours may form explosive mixtures with air.
If the temperature rises there is danger of the vessels bursting due to the high vapor pressure.

SECTION 11. TOXICOLOGICAL INFORMATION

Skin irritation : Irritating to skin.

Eye irritation : May irritate eyes.

Carcinogenicity : No data is available on the product itself.
Reproductive toxicity : No data is available on the product itself.
Teratogenicity : No data is available on the product itself.
Further information : Ingestion or inhalation of high concentrations may cause injuries to gastrointestinal tract, liver, kidneys and central nervous system.
Even the smallest quantities that enter into the lung due to swallowing or subsequent vomiting can lead to a pulmonary oedema or pneumonia.

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Further information : Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.
Vapours may cause drowsiness and dizziness.

Component:

n-heptane

142-82-5

Acute oral toxicity: LD50 Rat
Dose: > 5,000 mg/kg
Method: OECD Test Guideline 401

Acute dermal toxicity: LD50 Rabbit
Dose: > 2,000 mg/kg
Method: OECD Test Guideline 402

Acute inhalation toxicity: LC50 Rat
Dose: > 29.29 mg/l/Exposure time: 4 h
Method: OECD Test Guideline 403

Skin irritation: Rabbit
Result: irritating
Method: OECD Test Guideline 404

Eye irritation: Rabbit
Result: No eye irritation
Method: OECD Test Guideline 405

lithium 12-hydroxystearate

7620-77-1

Acute oral toxicity: LD50 Rat
Dose: > 2,000 mg/kg

Acute dermal toxicity: LD50 Rat
Dose: > 2,000 mg/kg
Method: OECD Test Guideline 402

Skin irritation: Result: No skin irritation
Method: OECD Test Guideline 439

Eye irritation: Rabbit
Result: Mild eye irritation
Method: OECD Test Guideline 405

Carcinogenicity: Animal testing did not show any carcinogenic effects.

Mutagenicity: Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

Reproductive toxicity: No toxicity to reproduction

Carcinogenicity:**OSHA**

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

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

IARC Titanium dioxide 13463-67-7

SECTION 12. ECOLOGICAL INFORMATION

Adsorbed organic bound halogens (AOX) : not included
Volatile organic compounds (VOC) content : 80 %
Additional ecological information : The product should not be allowed to enter drains, water courses or the soil.

Component:

n-heptane

142-82-5

Toxicity to fish:

LC50

Species:

Dose: 5.738 mg/l

Exposure time: 96 h

Calculation

Acute and prolonged toxicity for aquatic invertebrates:

EC50

Species: Daphnia magna (Water flea)

Dose: 1.5 mg/l

Exposure time: 48 h

Toxicity to algae:

EC50

Species:

Dose: 4.338 mg/l

Exposure time: 72 h

Calculation

Toxicity to algae:

NOEC

Species:

Dose: 0.97 mg/l

Exposure time: 72 h

Calculation

Toxicity to bacteria:

EC50

Species: Bacteria

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		Dose: 22.6 mg/l Exposure time: 48 h Calculation <u>Toxicity to bacteria:</u> NOEC Species: Bacteria Dose: 5.057 mg/l Exposure time: 48 h Calculation
lithium 12-hydroxystearate	7620-77-1	<u>Toxicity to fish:</u> LC50 Species: Oncorhynchus mykiss (rainbow trout) Dose: > 100 mg/l Exposure time: 96 h <u>Acute and prolonged toxicity for aquatic invertebrates:</u> EC50 Species: Daphnia magna (Water flea) Dose: > 100 mg/l Exposure time: 48 h <u>Toxicity to algae:</u> EC50 Species: Pseudokirchneriella subcapitata (microalgae) Dose: > 100 mg/l Exposure time: 72 h <u>Toxicity to algae:</u> NOEC Species: Pseudokirchneriella subcapitata (microalgae) Dose: 100 mg/l Exposure time: 72 h <u>Toxicity to bacteria:</u> Respiration inhibition of activated sludge NOEC Species: Dose: 13 mg/l Exposure time: 28 d Method:

SECTION 13. DISPOSAL CONSIDERATIONS

Adequate disposal : In accordance with local and national regulations.
This material and its container must be disposed of as hazardous waste.

SECTION 14. TRANSPORT INFORMATION

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DOT 49 CFR

ID No : UN 1950
Proper shipping name : Aerosols
Class : 2.1
Labels : 2.1
Emergency Response : 126
Guidebook Number

TDGR

ID No : UN 1950
Proper shipping name : AEROSOLS
Class : 2.1
Labels : 2.1

ICAO/IATA-DGR

ID No : UN 1950
Proper shipping name : Aerosols, flammable
Class : 2.1
ICAO-Labels : 2.1
Packing instruction (cargo aircraft) : 203
Packing instruction (passenger aircraft) : 203
Packing instruction (passenger aircraft) : Y203
Environmentally hazardous : no

IMDG-Code

ID No : UN 1950
Description of the goods : AEROSOLS
(n-heptane)
Class : 2.1
IMDG-Labels : 2.1
EmS Number 1 : F-D
EmS Number 2 : S-U
Marine pollutant : yes

SECTION 15. REGULATORY INFORMATION

SARA 311/312 Hazards : Fire Hazard
Sudden Release of Pressure Hazard
Acute Health Hazard

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CERCLA Reportable Quantity : This material does not contain any components with a CERCLA RQ.

EPCRA_313 US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

EPCRA_302 US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A)

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

PENN RTK US. Pennsylvania Worker and Community Right-to-Know Law (34 Pa. Code Chap. 301-323)

<u>Components</u>	<u>CAS-No.</u>
n-heptane	142-82-5
petroleum gases, liquefied	68476-85-7
distillates (petroleum), solvent-dewaxed heavy paraffinic	64742-65-0
Residual oils (petroleum), solvent-dewaxed	64742-62-7
zinc oxide	1314-13-2

MASS RTK US. Massachusetts Commonwealth's Right-to-Know Law (Appendix A to 105 Code of Massachusetts Regulations Section 670.000)

<u>Components</u>	<u>CAS-No.</u>
n-heptane	142-82-5
petroleum gases, liquefied	68476-85-7
distillates (petroleum), solvent-dewaxed heavy paraffinic	64742-65-0
Residual oils (petroleum), solvent-dewaxed	64742-62-7

NJ RTK US. New Jersey Worker and Community Right-to-Know Act (New Jersey Statute Annotated Section 34:5A-5)

<u>Components</u>	<u>CAS-No.</u>
n-heptane	142-82-5
petroleum gases, liquefied	68476-85-7

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distillates (petroleum), solvent-dewaxed heavy paraffinic	64742-65-0
Residual oils (petroleum), solvent-dewaxed	64742-62-7
lithium 12-hydroxystearate	7620-77-1

California Prop. 65 : This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

SECTION 16. OTHER INFORMATION

Further information

NFPA: Flammability



HMIS III:

HEALTH	3
FLAMMABILITY	4
PHYSICAL	2

0 = Insignificant, 1 =Slight,
2 =Moderate, 3 =High, 4 = Extreme

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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