



Safety Data Sheet ES-90® Thread Compound

Revision Date: 07/1/2015

1. Identification

1.1. Product identifier

Product Identity

ES-90® Thread Compound

Alternate Names

ES-90 Anti-Seize, ES-90 Tool Joint Compound
MIL-PRF-907

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use

See Technical Data Sheet.

Application Method

See Technical Data Sheet.

1.3. Details of the supplier of the safety data sheet

Company Name

Lub-O-Seal Company Inc.
17519 Lewis Drive
Cypress, TX 77433

Emergency

24 hour Emergency Telephone No.

Chemtel:
North America Toll Free: 1-800-255-3924
International: +01-813-248-0585

Customer Service: Lub-O-Seal Company Inc.

+01-281-373-0387

2. Hazard(s) identification

2.1. Classification of the substance or mixture

No applicable GHS categories.

2.2. Label elements

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.

No applicable GHS categories.

[Prevention]:

No GHS prevention statements

[Response]:

No GHS response statements

[Storage]:

No GHS storage statements

[Disposal]:

No GHS disposal statements



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3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
Distillates (petroleum), hydrotreated heavy naphthenic; Baseoil-unspecified CAS Number: 0064742-52-5	50 - 75	Asp. Tox. 1;H304	[1]
Graphite CAS Number: 0007782-42-5	10 - 25	Not Classified	[1] wpl = Yes
Calcined Kaolin CAS Number: 0066402-68-4	10 - 25	Not Classified	[1]
Copper CAS Number: 0007440-50-8	1.0 - 10	Not Classified	[1] wpl = Yes

In accordance with paragraph (i) of §1910.1200, the specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

[1] Substance classified with a health or environmental hazard.

[2] Substance with a workplace exposure limit.

[3] PBT-substance or vPvB-substance.

*The full texts of the phrases are shown in Section 16.

4. First aid measures

4.1. Description of first aid measures

General

In all cases of doubt, or when symptoms persist, seek medical attention.
Never give anything by mouth to an unconscious person.

Inhalation

Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious place in the recovery position and obtain immediate medical attention. Give nothing by mouth.

Eyes

Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and seek medical attention.

Skin

Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser.

Ingestion

If swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

4.2. Most important symptoms and effects, both acute and delayed

Overview

Skin: Defatting to the skin. Prolonged or repeated exposure can cause irritation and dermatitis.

Eyes: Eye irritant. May cause redness, tearing and blurred vision

Inhalation: Not expected

Ingestion: May cause nausea, vomiting or diarrhea

Exposure to solvent vapor concentrations from the component solvents in excess of the stated occupational exposure limits may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms include headache, nausea, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.



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Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in dryness, irritation and possible non-allergic contact dermatitis. Solvents may also be absorbed through the skin. Splashes of liquid in the eyes may cause irritation and soreness with possible reversible damage.

5. Fire-fighting measures

5.1. Extinguishing media

Foam, dry chemical, CO₂ and Halon

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition: Carbon monoxide

5.3. Advice for fire-fighters

Special Fire Fighting Procedures: Avoid use of water streams.

Unusual Fire & Explosion Hazards: Drums heated by fire can support combustion.

ERG Guide No. ----

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Put on appropriate personal protective equipment (see section 8).

6.2. Environmental precautions

Do not allow spills to enter drains or waterways.

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

6.3. Methods and material for containment and cleaning up

Mop up or otherwise absorb and hold for disposal

7. Handling and storage

7.1. Precautions for safe handling

Keep out of reach of children. For use by trained personnel only. Keep container closed during storage. For industrial and institutional use only

7.2. Conditions for safe storage, including any incompatibilities

Handle containers carefully to prevent damage and spillage.

Incompatible materials: Strong oxidizers, concentrated oxygen

7.3. Specific end use(s)



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No data available.

8. Exposure controls and personal protection

8.1. Control parameters

Exposure

CAS No.	Ingredient	Source	Value
0007440-50-8	Copper	OSHA	TWA 1 mg/m ³ [*Note: The PEL also applies to other copper compounds (as Cu) except copper fume.]
		ACGIH	TWA: 0.2 mg/m ³ (fume) 1 mg/m ³ (dusts and mists)
		NIOSH	TWA 1 mg/m ³ [*Note: The REL also applies to other copper compounds (as Cu) except Copper fume.]
		Supplier	No Established Limit
0007782-42-5	Graphite	OSHA	TWA 15 mg/m ³ TWA 15 mppcf
		ACGIH	TWA: 2 mg/m ³
		NIOSH	TWA 2.5 mg/m ³ (resp)
		Supplier	No Established Limit
0064742-52-5	Distillates (petroleum), hydrotreated heavy naphthenic; Baseoil-unspecified	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit
0066402-68-4	Calcined Kaolin	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit

Contains mineral oil. The exposure limits for oil mist are 5 mg/m³ OSHA PEL and 10 mg/m³ ACGIH.

Carcinogen Data

CAS No.	Ingredient	Source	Value
0007440-50-8	Copper	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0007782-42-5	Graphite	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0064742-52-5	Distillates (petroleum), hydrotreated heavy naphthenic; Baseoil-unspecified	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0066402-68-4	Calcined Kaolin	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;



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8.2. Exposure controls

Respiratory	If workers are exposed to concentrations above the exposure limit they must use the appropriate, certified respirators.
Eyes	Safety glasses or face shield if method of dispensing promotes splashing.
Skin	Protective gloves recommended.
Engineering Controls	Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn.
Other Work Practices	Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

9. Physical and chemical properties

Appearance	Bronze Copper Paste
Odor	Mild Hydrocarbon
Odor threshold	Not determined
pH	Not Measured
Melting point / freezing point	Not Measured
Initial boiling point and boiling range	> 600 F
Flash Point	450 F
Evaporation rate (Ether = 1)	< 1
Flammability (solid, gas)	Not Applicable
Upper/lower flammability or explosive limits	Lower Explosive Limit: Not Measured Upper Explosive Limit: Not Measured
Vapor pressure (Pa)	< 10
Vapor Density	> 1
Specific Gravity	1.10
Solubility in Water	Not Measured
Partition coefficient n-octanol/water (Log Kow)	Not Measured
Auto-ignition temperature	Not Measured
Decomposition temperature	Not Measured
Viscosity (cSt)	Not Measured

9.2. Other information

No other relevant information.

10. Stability and reactivity



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10.1. Reactivity

Hazardous Polymerization will not occur.

10.2. Chemical stability

Stable under normal circumstances.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

Excessive heat and open flame.

10.5. Incompatible materials

Strong oxidizers, concentrated oxygen

10.6. Hazardous decomposition products

Carbon monoxide

11. Toxicological information

Acute toxicity

Exposure to solvent vapor concentrations from the component solvents in excess of the stated occupational exposure limits may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms include headache, nausea, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.

Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in dryness, irritation and possible non-allergic contact dermatitis. Solvents may also be absorbed through the skin. Splashes of liquid in the eyes may cause irritation and soreness with possible reversible damage.

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
Distillates (petroleum), hydrotreated heavy naphthenic; Baseoil-unspecified - (64742-52-5)	> 5,000.00, Rat - Category: NA	No data available	No data available	5.70, Rat - Category: NA	No data available
Graphite - (7782-42-5)	No data available	No data available	No data available	No data available	No data available
Calcined Kaolin - (66402-68-4)	No data available	No data available	No data available	No data available	No data available
Copper - (7440-50-8)	2,500.00, Rat - Category: 5	>2,000.00, Rat - Category: 5	No data available	5.11, Rat - Category: NA	No data available

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).



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Classification	Category	Hazard Description
Acute toxicity (oral)	---	Not Applicable
Acute toxicity (dermal)	---	Not Applicable
Acute toxicity (inhalation)	---	Not Applicable
Skin corrosion/irritation	---	Not Applicable
Serious eye damage/irritation	---	Not Applicable
Respiratory sensitization	---	Not Applicable
Skin sensitization	---	Not Applicable
Germ cell mutagenicity	---	Not Applicable
Carcinogenicity	---	Not Applicable
Reproductive toxicity	---	Not Applicable
STOT-single exposure	---	Not Applicable
STOT-repeated exposure	---	Not Applicable
Aspiration hazard	---	Not Applicable

12. Ecological information

12.1. Toxicity

No additional information provided for this product. See Section 3 for chemical specific data.

Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/l	48 hr EC50 crustacea, mg/l	ErC50 algae, mg/l
Distillates (petroleum), hydrotreated heavy naphthenic; Baseoil-unspecified - (64742-52-5)	5,000.00, Oncorhynchus mykiss	1,000.00, Daphnia magna	1,000.00 (96 hr), Scenedesmus subspicatus
Graphite - (7782-42-5)	Not Available	Not Available	Not Available
Calcined Kaolin - (66402-68-4)	Not Available	Not Available	Not Available
Copper - (7440-50-8)	0.0103, Pimephales promelas	0.0025, Daphnia magna	0.018 (72 hr), Pseudokirchneriella subcapitata

12.2. Persistence and degradability

There is no data available on the preparation itself.

12.3. Bioaccumulative potential

Not Measured

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

12.6. Other adverse effects



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No data available.

13. Disposal considerations

13.1. Waste treatment methods

Observe all federal, state and local regulations when disposing of this substance.

14. Transport information

	DOT (Domestic Surface Transportation)	IMO / IMDG (Ocean Transportation)	ICAO/IATA
14.1. UN number	Not Applicable	Not Regulated	Not Regulated
14.2. UN proper shipping name	Not Regulated	Not Regulated	Not Regulated
14.3. Transport hazard class(es)	DOT Hazard Class: Not Applicable	IMDG: Not Applicable Sub Class: Not Applicable	Air Class: Not Applicable
14.4. Packing group	Not Applicable	Not Applicable	Not Applicable
14.5. Environmental hazards			
IMDG	Marine Pollutant: No		
14.6. Special precautions for user	No further information		

15. Regulatory information

Regulatory Overview	The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.
Toxic Substance Control Act (TSCA)	All components of this material are either listed or exempt from listing on the TSCA Inventory.
WHMIS Classification	Not Regulated
US EPA Tier II Hazards	Fire: No Sudden Release of Pressure: No Reactive: No Immediate (Acute): No Delayed (Chronic): No
EPCRA 311/312 Chemicals and RQs (lbs):	Copper (5,000.00)
EPCRA 302 Extremely Hazardous:	To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.
EPCRA 313 Toxic Chemicals:	



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Copper

Proposition 65 - Carcinogens (>0.0%):

Calcined Kaolin

Proposition 65 - Developmental Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Female Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Male Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

New Jersey RTK Substances (>1%):

Copper

Graphite

Pennsylvania RTK Substances (>1%):

Copper

Graphite

16. Other information

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is:

H304 May be fatal if swallowed and enters airways.

This is the first version in the GHS SDS format. Listings of changes from previous versions in other formats are not applicable.

End of Document