



RADCOLUBE® 2135 (2135-T-H)

Safety Data Sheet

MIL-PRF-17672E ISO VISCOSITY GRADE 68, MILITARY SYMBOL 2110-T-H, GRADE CODE B Hydraulic Fluid, Petroleum, Inhibited

Issue date: 4/21/2021

Revision date: 11/3/2022

Supersedes: 6/23/2022

Version: 4.0

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 1: Identification

1.1. Identification

Trade name RADCOLUBE® 2135 (2135-T-H)
Specification: MIL-PRF-17672E ISO Viscosity Grade 68, Military Symbol 2110-T-H, Grade Code B Hydraulic Fluid, Petroleum, Inhibited
Qualification Number (Date): NAVSEA Letter Ser 05S/2016-001 (8 January 2016)
Military Symbol: 2110-T-H
National Stock Number(s) (NSN): 9150-00-985-7237 5 Gallon Pail
9150-00-584-2560 55 Gallon Drum

1.2. Recommended use and restrictions on use

Use of the substance/mixture: This product is a military specification inhibited petroleum based hydraulic fluid containing anticorrosion and anti-oxidation additives for use in hydraulic systems and in other applications where a high grade lubricating oil having anticorrosion and anti-oxidation properties is required. This fluid should not be used in systems where a fire resistant fluid is specified.

1.3. Supplier

Manufacturer

Radco Industries Inc.
CAGE Code 6ZS16
700 Kingsland Drive
Batavia, Illinois 60510
United States
T (630) 232-7966
www.radcoind.com

1.4. Emergency telephone number

Emergency number: For Chemical Emergency Call CHEMTREC 24hr/day 7days/week
Within USA and Canada: 1-800-424-9300
Outside USA and Canada: +1 703-741-5970
(collect calls accepted)

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Acute toxicity (inhalation:dust,mist) Category 4 H332 Harmful if inhaled

RADCOLUBE® 2135 (2135-T-H)

MIL-PRF-17672E ISO VISCOSITY GRADE 68, MILITARY SYMBOL 2110-T-H, GRADE CODE B Hydraulic Fluid, Petroleum, Inhibited

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Skin sensitization, Category 1

H317

May cause an allergic skin reaction

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US):



Signal word (GHS US):

Warning

Hazard statements (GHS US):

H317 - May cause an allergic skin reaction

H332 - Harmful if inhaled

Precautionary statements (GHS US):

P261 - Avoid breathing fume, mist, spray, vapors.

P271 - Use only outdoors or in a well-ventilated area.

P272 - Contaminated work clothing must not be allowed out of the workplace.

P280 - Wear eye protection, protective clothing.

P302+P352 - If on skin: Wash with plenty of soap and water.

P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing.

P312 - Call a doctor if you feel unwell.

P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.

P363 - Wash contaminated clothing before reuse.

P501 - Dispose of contents/container to an approved waste disposal plant.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
Distillates (petroleum), solvent-dewaxed heavy paraffinic (Base Oil)	CAS-No.: 64742-65-0	> 95	Acute Tox. 4 (Inhalation:dust,mist), H332
Proprietary Additive 1* (Additive)	CAS-No.: Trade Secret	0.1 – 0.5	Acute Tox. 4 (Oral), H302 Skin Sens. 1, H317 STOT RE 2, H373 Aquatic Chronic 1, H410
Proprietary Additive 2* (Additive)	CAS-No.: Trade Secret	Trade Secret	Not classified

*Chemical name, CAS number and/or exact concentration have been withheld as a trade secret

Full text of hazard classes and H-statements : see section 16

RADCOLUBE® 2135 (2135-T-H)

MIL-PRF-17672E ISO VISCOSITY GRADE 68, MILITARY SYMBOL 2110-T-H, GRADE CODE B Hydraulic Fluid, Petroleum, Inhibited

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general: Call a poison center/doctor/physician if you feel unwell.

First-aid measures after inhalation: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor/physician if you feel unwell.

First-aid measures after skin contact: Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.

First-aid measures after eye contact: Rinse eyes with water as a precaution.

First-aid measures after ingestion: Call a poison center/doctor/physician if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after skin contact: May cause an allergic skin reaction.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Specific hazards arising from the chemical

Hazardous decomposition products in case of fire: Toxic fumes may be released.

5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures: Ventilate spillage area. Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid contact with skin and eyes.

6.1.2. For emergency responders

Protective equipment: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up: Take up liquid spill into absorbent material.

Other information: Dispose of materials or solid residues at an authorized site.

RADCOLUBE® 2135 (2135-T-H)

MIL-PRF-17672E ISO VISCOSITY GRADE 68, MILITARY SYMBOL 2110-T-H, GRADE CODE B Hydraulic Fluid, Petroleum, Inhibited

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling:

Use only outdoors or in a well-ventilated area. Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid contact with skin and eyes. Wear personal protective equipment.

Hygiene measures:

Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions:

Store in a well-ventilated place. Keep cool.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

RADCOLUBE® 2135 (2135-T-H)	
No additional information available	
Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)	
USA - OSHA - Occupational Exposure Limits	
OSHA PEL TWA [1]	5 mg/m ³ 8 Hours
Proprietary Additive 1	
No additional information available	
Proprietary Additive 2	
No additional information available	

8.2. Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Environmental exposure controls:

Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:
Protective gloves
Eye protection:
Safety glasses

RADCOLUBE® 2135 (2135-T-H)

MIL-PRF-17672E ISO VISCOSITY GRADE 68, MILITARY SYMBOL 2110-T-H, GRADE CODE B Hydraulic Fluid, Petroleum, Inhibited

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

Wear respiratory protection.

Personal protective equipment symbol(s):



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Liquid
Appearance:	Liquid.
Color:	Light yellow to brown
Odor:	Petroleum-like odor
Odor threshold:	No data available
pH:	No data available
Melting point:	Not applicable
Freezing point:	≤ -18 °C (ASTM D97 Pour point)
Boiling point:	No data available
Flash point:	> 171 °C (ASTM D92 Flash point)
Relative evaporation rate (butyl acetate=1):	No data available
Flammability:	Not applicable.
Vapor pressure:	No data available
Relative vapor density at 20°C:	No data available
Relative density:	0.8738 at 15.6°C (Water = 1)
Solubility:	Material insoluble in water.
Partition coefficient n-octanol/water (Log Pow):	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
Viscosity, kinematic:	66.1 (61.2 – 73.1) mm ² /s at 40°C (104°F)
Viscosity, dynamic:	No data available

RADCOLUBE® 2135 (2135-T-H)

MIL-PRF-17672E ISO VISCOSITY GRADE 68, MILITARY SYMBOL 2110-T-H, GRADE CODE B Hydraulic Fluid, Petroleum, Inhibited

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Explosion limits:	No data available
Explosive properties:	Not classified as explosive according to EC criteria, but may present risks in the event of a fire.
Oxidizing properties:	No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

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

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral):	Not classified
Acute toxicity (dermal):	Not classified
Acute toxicity (inhalation):	Harmful if inhaled.
Skin corrosion/irritation:	Not classified
Carcinogenicity:	Not classified
Aspiration hazard:	Not classified
Viscosity, kinematic:	66.1 (61.2 – 73.1) mm ² /s at 40°C (104°F)
Symptoms/effects after skin contact:	May cause an allergic skin reaction.
STOT-single exposure:	Not classified
STOT-repeated exposure:	Not classified
Reproductive toxicity:	Not classified

RADCOLUBE® 2135 (2135-T-H)

ATE US (dust, mist):	2.206 mg/l/4h
----------------------	---------------

RADCOLUBE® 2135 (2135-T-H)**MIL-PRF-17672E ISO VISCOSITY GRADE 68, MILITARY SYMBOL 2110-T-H, GRADE CODE B Hydraulic Fluid, Petroleum, Inhibited**

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)	
LD50 oral rat:	> 5000 mg/kg body weight (OECD 401 method)
LD50 dermal rabbit:	> 5000 mg/kg body weight (OECD 402 method)
LC50 Inhalation - Rat:	2.18 (1.8 – 2.55) mg/l/4h (OECD 403 method)
ATE US (vapors):	2.18 mg/l/4h
ATE US (dust, mist):	2.18 mg/l/4h
Proprietary Additive 1	
LD50 oral rat:	1625 mg/kg body weight (male)
LD50 dermal rabbit:	> 5000 mg/kg body weight (male)
ATE US (oral):	1625 mg/kg body weight
Proprietary Additive 2	
LD50 oral rat:	> 2000 mg/kg (Literature data)
Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)	
Serious eye damage/irritation:	Not classified
Proprietary Additive 1	
Serious eye damage/irritation:	Not classified
Proprietary Additive 2	
Serious eye damage/irritation:	Not classified
Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)	
Respiratory or skin sensitization:	May cause an allergic skin reaction.
Proprietary Additive 1	
Respiratory or skin sensitization:	May cause an allergic skin reaction.
Proprietary Additive 2	
Respiratory or skin sensitization:	May cause an allergic skin reaction.
Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)	
Germ cell mutagenicity:	Not classified
Proprietary Additive 1	
Germ cell mutagenicity:	Not classified
Proprietary Additive 2	
Germ cell mutagenicity:	Not classified

RADCOLUBE® 2135 (2135-T-H)**MIL-PRF-17672E ISO VISCOSITY GRADE 68, MILITARY SYMBOL 2110-T-H, GRADE CODE B Hydraulic Fluid, Petroleum, Inhibited**

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)	
NOAEL (animal/male, F0/P):	≥ 1000 mg/kg body weight (OECD 421 method)
NOAEL (animal/female, F0/P):	≥ 1000 mg/kg body weight (OECD 421 method)
NOAEL (animal/male, F1):	≥ 1000 mg/kg body weight (OECD 421 method)
NOAEL (animal/female, F1):	≥ 1000 mg/kg body weight (OECD 421 method)
Proprietary Additive 1	
NOAEL (animal/male, F0/P):	< 40 mg/kg body weight Test method EU B.35
NOAEL (animal/female, F0/P):	< 46 mg/kg body weight Test method EU B.35
Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)	
LOAEL (oral,rat,90 days):	125 mg/kg body weight (OECD 408 method)
NOAEL (dermal,rat/rabbit,90 days):	1000 mg/kg body weight (OECD 410 method)
Proprietary Additive 1	
LOAEL (oral,rat,90 days):	20 mg/kg body weight (OECD 407 method)
NOAEL (oral,rat,90 days):	80 mg/kg body weight (OECD 407 method)
STOT-repeated exposure:	May cause damage to organs through prolonged or repeated exposure.

SECTION 12: Ecological information**12.1. Toxicity**

Ecology - general: The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

Proprietary Additive 1	
LC50 - Fish [1]:	0.44 mg/l (Species: Oncorhynchus mykiss (Rainbow trout))
EC50 - Crustacea [1]:	0.3 mg/l EC50 48h - Daphnia magna [mg/l]
ErC50 algae:	0.93 mg/l (Species: Pseudokirchneriella subcapitata; 96 Hours, Freshwater)
LOEC (chronic):	0.1 mg/l Species: Daphnia magna (Water flea); 21 days

12.2. Persistence and degradability

Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)	
Persistence and degradability:	Biodegradability in water: no data available.
Proprietary Additive 1	
Persistence and degradability:	Not readily biodegradable in water.
Proprietary Additive 2	
Persistence and degradability:	Not readily biodegradable in water.

RADCOLUBE® 2135 (2135-T-H)

MIL-PRF-17672E ISO VISCOSITY GRADE 68, MILITARY SYMBOL 2110-T-H, GRADE CODE B Hydraulic Fluid, Petroleum, Inhibited

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

12.3. Bioaccumulative potential

Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)	
Partition coefficient n-octanol/water (Log Pow):	2 – 6
Bioaccumulative potential:	No bioaccumulation data available.
Proprietary Additive 1	
BCF - Fish [1]:	427 – 2730 (OECD 305 method)
Partition coefficient n-octanol/water (Log Pow):	4.28 Experimental data
Bioaccumulative potential:	Potential for bioaccumulation ($500 \leq \text{BCF} \leq 5000$).
Proprietary Additive 2	
Bioaccumulative potential:	No bioaccumulation data available.

12.4. Mobility in soil

Proprietary Additive 1	
Surface tension:	No data available
Organic Carbon Normalized Adsorption Coefficient (Log Koc):	3.227 (QSAR Source: PCKOCWIN v2.0)
Ecology - soil:	Low potential for mobility in soil.

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods: Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA / ICAO / ADN / RID / ADG

14.1. UN number

Not regulated for transport

14.2. UN proper shipping name

Proper Shipping Name (DOT):	Not applicable
Proper Shipping Name (TDG):	Not applicable
Proper Shipping Name (IMDG):	Not applicable
Proper Shipping Name (IATA):	Not applicable

RADCOLUBE® 2135 (2135-T-H)

MIL-PRF-17672E ISO VISCOSITY GRADE 68, MILITARY SYMBOL 2110-T-H, GRADE CODE B Hydraulic Fluid, Petroleum, Inhibited

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

14.3. Transport hazard class(es)

DOT

Transport hazard class(es) (DOT): Not applicable

TDG

Transport hazard class(es) (TDG): Not applicable

IMDG

Transport hazard class(es) (IMDG): Not applicable

IATA

Transport hazard class(es) (IATA): Not applicable

14.4. Packing group

Packing group (DOT): Not applicable

Packing group (TDG): Not applicable

Packing group (IMDG): Not applicable

Packing group (IATA): Not applicable

14.5. Environmental hazards

Other information: No supplementary information available.

14.6. Special precautions for user

DOT

No data available

TDG

No data available

IMDG

No data available

IATA

No data available

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

Commercial status of components according to the United States Environmental Protection Agency's Toxic Substances Control Act (TSCA):

RADCOLUBE® 2135 (2135-T-H)**MIL-PRF-17672E ISO VISCOSITY GRADE 68, MILITARY SYMBOL 2110-T-H, GRADE CODE B Hydraulic Fluid, Petroleum, Inhibited**

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Name	CAS-No.	Listing	Commercial status	Flags
Distillates (petroleum), solvent-dewaxed heavy paraffinic	64742-65-0	Present	Active	
Proprietary Additive 1		Present	Active	
Proprietary Additive 2		Present	Active	XU

This product or mixture is not known to contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

15.2. International regulations**CANADA****Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)**

Listed on the Canadian DSL (Domestic Substances List)

Proprietary Additive 1

Listed on the Canadian DSL (Domestic Substances List)

Proprietary Additive 2

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations**Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)**

Listed on INSQ (Mexican National Inventory of Chemical Substances)

Proprietary Additive 1

Listed on INSQ (Mexican National Inventory of Chemical Substances)

Proprietary Additive 2

Listed on INSQ (Mexican National Inventory of Chemical Substances)

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

RADCOLUBE® 2135 (2135-T-H)**MIL-PRF-17672E ISO VISCOSITY GRADE 68, MILITARY SYMBOL 2110-T-H, GRADE CODE B Hydraulic Fluid, Petroleum, Inhibited**

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

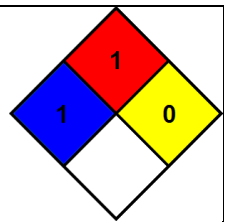
Revision date: 11/03/2022

Full text of H-phrases	
H302	Harmful if swallowed
H317	May cause an allergic skin reaction
H332	Harmful if inhaled
H373	May cause damage to organs through prolonged or repeated exposure
H410	Very toxic to aquatic life with long lasting effects

NFPA health hazard 1 - Materials that, under emergency conditions, can cause significant irritation.

NFPA fire hazard 1 - Materials that must be preheated before ignition can occur.

NFPA reactivity 0 - Material that in themselves are normally stable, even under fire conditions.



Hazard Rating	
Health	1 Slight Hazard - Irritation or minor reversible injury possible
Flammability	1 Slight Hazard - Materials that must be preheated before ignition will occur. Includes liquids, solids and semi solids having a flash point above 200 F. (Class IIIB)
Physical	0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

This information relates to the specific material designated and may not be valid for such material used in combination with any other materials or in any particular process or for any particular purpose. Such information stated is to the best of Radco's knowledge and belief, accurate and reliable as of the date compiled. However, no representation, warranty or guarantee is made to its accuracy, reliability, or completeness, purchasers, users and distributors are not relying on any promise, representation, or recommendation made by Radco, and Radco does not accept liability for any loss or damage that may occur from the use of this information. Final determination of suitability of any material is the sole responsibility of the user. All material should be used with caution to guard against unknown hazards. Although certain hazards are described herein, Radco does not guarantee that these are the only hazards that exist.