

1. Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier****Product Identity**

AZ 717-LT

Alternate Names

Absolute Zero 717

1.2. Relevant identified uses of the substance or mixture and uses advised against**Intended use**Lubricant, Compressor Lubricant , Refrigeration
Lubricant**Application Method**

See Technical Data Sheet.

1.3. Details of the supplier of the safety data sheet**Company Name**IR Pros
7900 Rodeo Trail Ste. 160
Mansfield, TX 76063**Emergency****24-hour Emergency Telephone No.**USA – Chemtrec: 800-424-9300
All Others – Chemtrec: +1-703-527-3887**Customer Service:**

(833) 298-PART

2. Hazard(s) identification**Classification of the substance or mixture under OSHA's Hazard Communication Standard (1910.1200) revised 2024 (GHS revision 7).**

The substance is not classified according to the OSHA Hazcom or WHMIS regulations.

Label elements

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

The substance is not classified according to the OSHA Hazcom or WHMIS regulations.

[Prevention]:

No GHS prevention statements

[Response]:

No GHS response statements

[Storage]:

No GHS response statements

[Disposal]:

No GHS response statements

Other hazards

This product contains no PBT/vPvB chemicals.

This product contains no endocrine disrupting chemicals.

See Technical Data Sheet.

3. Composition/information on ingredients

There are no ingredients in this product which are classified as hazardous.

4. First aid measures

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.

Most important symptoms and effects, both acute and delayed**Overview**

No specific symptom data available.
Treat symptomatically. See section 2 for further details.

5. Fire-fighting measures

Extinguishing media

Recommended extinguishing media; alcohol resistant foam, CO₂, powder, water spray.
Do not use; water jet.

Special hazards arising from the substance or mixture

Hazardous decomposition: No hazardous decomposition data available.

Advice for fire-fighters

Cool closed containers exposed to fire by spraying them with water. Do not allow run off water and contaminants from fire fighting to enter drains or water ways.

ERG Guide No. ----

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

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

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.

Methods and material for containment and cleaning up

Ventilate the area and avoid breathing vapors. Take the personal protective measures listed in section 8.

Contain and absorb spillage with non-combustible materials e.g. sand, earth, vermiculite. Place in closed containers outside buildings and dispose of according to the Waste Regulations. (See section 13).

Clean, preferably with a detergent. Do not use solvents.

Do not allow spills to enter drains or watercourses.

If drains, sewers, streams or lakes are contaminated, inform the local water company immediately. In the case of contamination of rivers, streams or lakes the Environmental Protection Agency should also be informed.

7. Handling and storage

Precautions for safe handling

Handle containers carefully to prevent damage and spillage.

See section 2 for further details. - [Prevention]:

Conditions for safe storage, including any incompatibilities

Incompatible materials: No data available.

See section 2 for further details. - [Storage]:

Specific end use(s)

No data available.

8. Exposure controls and personal protection

There are no ingredients in this product which are classified as hazardous.

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical State

Liquid

Color

Clear, Colorless to Pale Yellow or Amber

AZ-717

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Odor	Characteristic
Melting point / freezing point	Not Available
Initial boiling point and boiling range	> 300°C (572°F)
Flammability (solid, gas)	Not Applicable
Upper/lower flammability or explosive limits	Lower Explosive Limit: Not Available Upper Explosive Limit: Not Available
Flash Point	238°C (464°F)
Auto-ignition temperature	Not Available
Decomposition temperature	Not Available
pH	Not Available
Viscosity (cSt) @ 40 °C	64 cSt at 40°C
Solubility in Water	Not Available
Partition coefficient n-octanol/water (Log Kow)	Not Available
Vapor pressure (Pa)	< 0.013 kPa (0.1 mm Hg) at 20°C
Specific Gravity	Not Available
Vapor Density	> 1 (air=1) heavier than air
Evaporation rate (Ether = 1)	Not Available
Density @ 20°C (g/cm³)	0.866
Pour Point °C (°F)	-39°C (-38°F)
Other information	
DMSO extract by IP346: Less than 3.0 wt % (mineral oil component only)	

10. Stability and reactivity**Reactivity**

Hazardous Polymerization will not occur.

Chemical stability

Stable under normal circumstances.

Possibility of hazardous reactions

No data available.

Conditions to avoid

No data available.

Incompatible materials

No data available.

Hazardous decomposition products

No hazardous decomposition data available.

11. Toxicological information

Acute toxicity

There are no ingredients in this product which are classified as hazardous.

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-single exposure	3	Not Applicable
STOT-repeated exposure	---	Not Applicable
Aspiration hazard	---	Not Applicable

Possible routes of entry:

Symptoms and effects, both acute and delayed:

No specific symptom data available.

Treat symptomatically.

12. Ecological information

Toxicity

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

Aquatic Ecotoxicity

There are no ingredients in this product which are classified as hazardous.

Persistence and degradability

There is no data available on the preparation itself.

Bioaccumulative potential

Not Available

Mobility in soil

No data available.

Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

Other adverse effects

No data available.

13. Disposal considerations

Waste treatment methods

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

14. Transport information

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

15. Regulatory information

Regulatory Overview The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.

Classification of the substance or mixture under OSHA's Hazard Communication Standard (1910.1200) revised 2024 (GHS revision 7).

EPCRA 302 Extremely Hazardous :
(No Product Ingredients Listed)

EPCRA 313 Toxic Chemicals:
(No Product Ingredients Listed)

Proposition 65 - Carcinogens (>0.0%):

2-Ethylhexyl acrylate

Ethyl acrylate

Proposition 65 - Developmental Toxins (>0.0%):
(No Product Ingredients Listed)

Proposition 65 - Female Repro Toxins (>0.0%):
(No Product Ingredients Listed)

Proposition 65 - Male Repro Toxins (>0.0%):
(No Product Ingredients Listed)

Proposition 65 Label Warning:

P65- yes WARNING: This product can expose you to chemicals including [2-Ethylhexyl acrylate, Ethyl acrylate], which are known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

16. Other information

SDS Revision Date 11/21/2024

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

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INDUSTRIAL REFRIGERATION PROS



ABSOLUTE ZERO AMMONIA LUBRICANTS

TYPICAL DATA

		AZ 717	AZ 717 XLT	AZ 717-FG	AZ 717-LT (HE)	AZ 717-SC
Viscosity @ 40°C	cSt	64.6	43.5	62.8	60.6	63.3
Viscosity @ 100°C	cSt	8.65	7.55	9.75	8.70	8.51
Viscosity Index	-	106	142	140	117	105
Density @ 20°C	g/cm ³	0.863	0.829	0.832	0.855	0.867
Flash Point	°C (°F)	235 (455)	255 (491)	260 (500)	245 (473)	235 (455)
Pour Point	°C (°F)	-39 (-38)	≥-57 (-71)	≥-48 (-54)	-45 (-49)	-36 (-33)
Total Acid Number	mgKOH/g	<0.05	<0.015	<0.015	<0.05	<0.05

AZ 717

AZ 717 is 2-stage hydrocracked ammonia refrigeration lubricant. This lubricant is an enhanced version of the technology used by most OEMs. It offers reduced solubility with ammonia, less oil carryover, and better pumpability even under extremely low-temperature conditions. AZ 717 is also completely top-off compatible with most common paraffinics, naphthenics, alkylbenzenes, PAOs, and single-stage hydrocracked products. Recommended Evaporator Temperature is -49F (-45C).

AZ 717 XLT

AZ 717 XLT is formulated for lower viscosities for extremely cold evaporator temperatures to ensure the lubricant remains mobile and easily pumpable. Recommended Evaporator Temperature is -65F (-54C).

AZ 717-FG

AZ 717-FG offers exceptional oxidative resistance as well as enhanced chemical and thermal stability. This translates into longer oil life, less sludge and varnish, and better protection of compressor parts. AZ 717-FG complies with H1 requirements for lubricants with incidental food contact. Recommended evaporator temperature is -49F (-45C).

AZ 717-LT (HE)

AZ 717-LT (HE) is a high-efficiency ammonia refrigeration compressor fluid specifically designed to lower energy consumption in compressors. This formulation utilizes the next generation of 2-stage hydrocracked base stocks and advanced additives to ensure outstanding performance and fluid life. It offers reduced lubricant carryover, improved low-temperature fluidity for better evaporator draining, and can help to reduce compressor energy consumption by up to 1.5%. AZ 717-LT continues to be effective at temperatures beyond -51°C (-60°F), long after competitive fluids have stopped flowing efficiently. AZ 717-LT's lower viscosities at these cold evaporator temperatures help ensure the lubricant remains mobile and easily pumpable, reducing the energy required to operate the compressor. Recommended evaporator temperature is -51F (-46C).

AZ 717-SC

AZ 717-SC is a seal-conditioning formulation from among our group of products. This fluid is an enhanced version of the technology used by most OEMs. It offers reduced solubility with ammonia, less oil carryover, and better pumpability even under extremely low-temperature conditions. This oil helps stop and prevent leaks by conditioning and restoring hardened seals, O-rings and elastomers. AZ 717-SC is also completely top-off compatible with most normal paraffinics, naphthenics, alkylbenzenes, PAOs, and single-stage hydrocracked products. Recommended Evaporator Temperature is -49F (-45C).