



SAFETY DATA SHEET

ADVACOR™ ABR

1. Identification of the Substance/Mixture and of the Company/Undertaking:

- 1.1 **Product Identifier:** ADVACor™ ABR Absorption Refrigerant
1.1.1 **Substances** Deionized Water, Distilled Water
1.1.2 **Mixture name:** Not applicable
1.2 **Relevant Identified Uses of the Substance or Mixture and Uses Advised Against:**
Formulation and chemical synthesis in industrial manufacturing operations.
Additive for preparations and articles for industrial and consumer use.
Do not use for private purposes (household).

1.3 **Details of the Supplier of the Safety Data Sheet**

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FMC Corporation
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Charlotte, NC 28208
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1.888.lithium

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Jinke Road
Shanghai, China 201203
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Email: lithium.info@fmc.com
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1.4 **Emergency Telephone Number:**

North America
CHEMTREC: +1.800.424.9300
+1.703.527.3887
Plant: +1.704.629.5361
Medical: +1.303.595.9048

Europe
24 hr Specialist advice number:
CHEMTREC: +44 870 8200418

Asia Pacific
Phone: +86.21.2067.5888

2. Hazards Identification

- 2.1 **Classification of the Substance or mixture:**
2.1.1 GHS Classification [EC Regulation No 1272/2008 and US OSHA regulations]
None
2.2.2 EC: Classification according to 67/548/EEC or 1999/45/EC [DSD/DPD]
None
2.2 **Label Elements:**
2.2.3 Hazard Pictograms(s): None
2.2.4 Signal Word: None
Hazard Statement(s): No significant health effects expected.
Precautionary Statement(s):
None
2.3 **Other Hazards**
None.

3. Composition / Information on Ingredients

3.1 **Substances**

3.1.1 GHS Classification [EC: Regulation No 1272/2008; US: OSHA regulations]

Chemical Name	CAS #	EC No	EC Index No	REACH Reg No	Wt.%	Classification, Hazard Statement Codes
Water	7732-18-5	None	None	None	100	None

3.1.2 EC: Classification according to 67/548/EEC or 1999/45/EC [DSD/DPD]

<u>Chemical Name</u>	<u>CAS #</u>	<u>EC No</u>	<u>EC Index</u> <u>No</u>	<u>REACH Reg No</u>	<u>Wt. %</u>	<u>Classification, Hazard</u> <u>Phrases</u>
Water	7732-18-5	None	None	None	100	None

- 3.2 **Mixtures** Not applicable
(see Section 16 for abbreviations and R-phrases text)

4. First Aid Measures

4.1 Description of First Aid Measures

- EYES:** It is unlikely that emergency treatment will be required.
SKIN: It is unlikely that emergency treatment will be required.
INGESTION: It is unlikely that emergency treatment will be required.
INHALATION: It is unlikely that emergency treatment will be required.

4.2 Most Important Symptoms and effects, both acute and delayed

None expected.

4.3 Indication of any immediate medical attention and special treatment needed.

Notes to medical doctor:

Treatment is symptomatic and supportive.

5. Fire-Fighting Measures

- 5.1 **Extinguishing media** Dry chemical, CO₂, water spray or regular foam.

5.2 Special hazards arising from the substance or mixture

- Hazardous combustion products** None. Not combustible.
General Hazard No known physical hazard, non-combustible.
Properties contributing to
Flammability Not flammable
Flashpoint Not applicable
Flammable limits in air Not applicable
Auto ignition temperature Not applicable.
Sensitivity to static discharge Not applicable
Sensitivity to static impact Not applicable

5.3 Advice for fire-fighters

Wear full protective clothing and self-contained breathing apparatus (SCBA) approved for fire fighting. This is necessary to protect against the hazards of heat, products of combustion and oxygen deficiency. Do not breathe smoke, gases or vapors generated.

6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Before cleanup measures begin, review the entire SDS with particular attention to Section 2, Hazards Identification; and Section 8, Exposure Controls/Personal Protection

6.2 Environmental precautions

No special release measures required.

6.3 Methods and material for containment and cleaning up

No special release measures required.

6.4 Reference to other sections

Before cleanup measures begin, review the entire SDS with particular attention to Section 2, Hazards Identification; and Section 8, Exposure Controls/Personal Protection.

6.5 Additional information

Not specified.

7. Handling and Storage

7.1 Precautions for safe handling

Avoid contact with eyes, skin or clothing.

7.2 Conditions for safe storage, including any incompatibilities

Keep container closed.

7.3 Specific end use(s)

Not available. Chemical safety assessment has not been completed for this product.

8. Exposure Controls / Personal Protection

8.1 Control parameters

DNEL

Long-term exposure, systemic, inhalation Not available

Long-term exposure, systemic, dermal Not available

PNEC

PNEC aqua (freshwater) Not available

PNEC STP Not available

EXPOSURE LIMITS

Chemical Name	EU		EH40 (UK WEL)		USA (ACGIH)		USA (OSHA)	
	TWA	STEL	TWA	STEL	TWA	STEL/Ceiling	PEL	STEL/Ceiling
water	none*		none*		none*		none*	

8.2 Exposure controls

Engineering controls:

Personal protective equipment

Eyes and Face: None

Respiratory: None

Protective Clothing: **Gloves:** None

Other: Not specified.

Work Hygienic Practices: None

9. Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance: Clear liquid
Odor: Odorless
Odor threshold: Not applicable
pH: 7
Melting point: 100°C (212°F)
Boiling point: 0°C (32°F)
Flash point: Not applicable
Evaporation rate(butyl acetate = 1): Not applicable
Flammability: Not flammable
Flammable limits: Not applicable
Vapor pressure: Not applicable
Vapor density (air = 1): Not applicable
Specific gravity: Not available
Solubility in water: Miscible in any proportion
Partition coefficient n-octanol/ water: Not applicable.
Autoignition temperature: Not applicable
Decomposition temperature: Not available
Viscosity: Not available
Explosive properties: Not explosive
Oxidizing properties: Not an oxidizer

9.2 Other information

Self-reactive properties Does not meet classification criteria.

<u>Pyrophoric properties</u>	Does not meet classification criteria
<u>Self-heating properties</u>	Does not meet classification criteria.
<u>Water reactive properties</u>	Does not meet classification criteria.
<u>Corrosive to metals</u>	Does not meet classification criteria.
<u>Molecular weight:</u>	Not available

10. Stability and Reactivity

10.1 <u>Reactivity</u>	Stable.
10.2 <u>Chemical stability</u>	Stable.
10.3 <u>Possibility of hazardous reaction</u>	Hazardous polymerization will not occur.
10.4 <u>Conditions to avoid</u>	None
10.5 <u>Incompatible materials</u>	None
10.6 <u>Hazardous decomposition products</u>	None

11. Toxicological Information

11.1 Information on toxicological effects

(a) acute toxicity	No significant health effects expected.
(b) skin corrosion/irritation	No significant health effects expected.
(c) serious eye damage/irritation	No significant health effects expected.
(d) respiratory/skin sensitisation	No significant health effects expected.
(e) germ cell mutagenicity	No significant health effects expected.
(f) carcinogenicity	No significant health effects expected.
(g) reproductive toxicity	No significant health effects expected.
(h) STOT-single exposure	No significant health effects expected.
(i) STOT-repeated exposure	No significant health effects expected.
(j) aspiration hazard	No significant health effects expected.

Acute Effects From Overexposure:

No data available for the formulation.

Chronic Effects From Overexposure:

No data available for product.

Carcinogenicity Listings

EH40: Not listed.
IARC: Not listed.
NTP: Not listed.
OSHA: Not considered a carcinogen under OSHA.
ACGIH: Not listed.

12. Ecological Information

12.1 <u>Toxicity:</u>	No classification No data available for the product. Based on the available data, the classification criteria are not met.
12.2 <u>Persistence and degradability</u>	Not available
12.3 <u>Bioaccumulative potential</u>	Not available
12.4 <u>Mobility in soil</u>	No data available for the product.
12.5 <u>Results of PBT and vPvB assessment</u>	No data available for the product.
12.6 <u>Other adverse effects</u>	None

13. Disposal Considerations

13.1 Waste treatment methods

No special release measures required. Dispose of waste according to local and Federal laws and regulations.

14. Transport Information

14.1 <u>UN Number</u>	Not classified
14.2 <u>UN proper shipping name (IMDG, ICAO, ADR, DOT)</u>	None
14.3 <u>Transport hazard class(es) (IMDG, ICAO, ADR, DOT)</u>	None
14.4 <u>Packing group (IMDG, ICAO, ADR, DOT)</u>	None
14.5 <u>Environmental hazards</u>	None
14.6 <u>Special precautions for user</u>	None
14.7 <u>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</u>	None

15. Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EUROPEAN UNION:

German Wassergefährdungsklasse (water hazard class)
water not listed

UNITED STATES:

Section 311 Hazard Category (40 CFR 370):

None

Section 313 Reportable Ingredients (40 CFR 372):

This product does not contain a toxic chemical subject to the reporting requirements of Section 313 of Emergency Planning and Community Right-To-Know Act of 1986.

Section 302 Extremely Hazardous Substances (40 CFR 355):

Not listed

CERCLA Hazardous Substance (40 CFR 302.4):

Not listed

TSCA Sec 12b Export Notification:

This product is not subject to TSCA 12 (b) Export Notification Requirements.

NFPA Rating:

Health: 0 Flammability: 0 Reactivity: 0 Special: None

INTERNATIONAL INVENTORY STATUS:

<u>Inventory/Country</u>	<u>Product Status</u>
EINECS (EU)	Listed
TSCA (US)	Listed
ECL (Korea)	Listed
DSL (Canada)	Listed

15.2 Chemical Safety Assessment

The Chemical Safety Assessment has not been completed for this product.

16. Other Information

European Union:

R Phrases: None

List of Abbreviations used in this SDS:

PBT Persistent, Bioaccumulative and Toxic

vPvB very Persistent, very Bioaccumulative
PEC Predicted environmental concentration
PNEC Predicted no effect concentration
DNEL Derived no effect level

Specific uses identified for Exposure Scenarios

Not available

REVISION SUMMARY: Revision # 0. New SDS.

This SDS has been prepared to meet European Regulation (EC) No 1907/2006 [and No 1272/2008], and U. S. OSHA Hazard Communication Standard requirements.

type 0

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