

**ARCTICA DG (RTU)**  
**MATERIAL SAFETY AND DATA SHEET**

1. DESCRIPTION	
Product name	Arctica DG <sup>®</sup>
Description	Aircraft Deicing fluid, Type I. Complies with Specification AMS 1424
Chemical emergency number	Russia: (8555) 30 31 74 or 01 USA: (800) 424 9300 (CHEMTREC) Canada: (613) 996 6666 (CANUTEC) Other locations: (703) 527 3887 (CHEMTREC – USA)
Manufactured and supplied by:	Arcton Ltd. PO BOX 1079 GO-11, NIZHENEKAMSK 423570 TATARSTAN, RUSSIA Phone/fax: +7 8555 30 31 74 contact@arcton.ru <a href="http://arcton.ru">http://arcton.ru</a>
2. COMPOSITION	
	Aqueous diethylene glycol mixture
	Contains a minimum of 65 % diethylenylene glycol
3. HAZARD IDENTIFICATION	
Inhalation	Considered to be non-hazardous
Skin	Unlikely to cause irritation
Eyes	May cause temporary irritation
Ingestion	Considered to be non-hazardous
Occupation Exposure Limits	An exposure limit has been set for Diethylene Glycol (synonyms dihydroxyethyl ether, 3-Oxapentane-1,5-diol).
4. FIRST AID MEASURES	
Ingestion	Give large quantities of water to drink. Consult medical personnel.
Skin contact	Wash off in flowing water. Launder contaminated clothing before re-use.
Eye contact	Irrigate with water for 5 minutes. Obtain medical assistance if irritation persists.
Inhalation	Remove to fresh air if feeling unwell. Consult medical personnel if symptoms persist.
5. FIRE FIGHTING MEASURES	
Flash point (close cup)	No flash to 100°C
Auto ignition temperature	446°C
Exposure limits	No data.
Specific fire-fighting procedures	None.
Unusual fire hazards	The product may become combustible after prolonged heating at the boiling point.
Extinguishing media	Water, foam, Carbon Dioxide, dry powder.
Hazardous decomposition products	Incomplete combustion may produce Carbon Monoxide and other harmful gases/vapours.
NFPA Ratings:	Health 0; Flammability 1; Reactivity 0; Special NDA (Least-0, Slight-1, Moderate-2, High-3, Extreme-4). These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA) or the National Paint Coating Association

6. ACCIDENTAL RELEASE MEASURES	
	Contain spillage and absorb on suitable material e.g. sawdust, sand or earth. Transfer to a container for disposal. See section 13.
	Wash the spillage area with plenty of water.
7. HANDLING AND STORAGE	
	Avoid contact with skin and eyes.
	Avoid breathing mists/vapours when spraying.
	Store in tightly sealed containers, away from direct heat and strong oxidizing agents.
8. EXPOSURE CONTROLS/PERSONAL PROTECTION	
	Maintain sufficient ventilation to comply with 'Occupational Exposure Standards'.
	Wear eye protection if splashing is possible. An eye wash bottle should be available.
	Gloves and protective overalls recommended if prolonged contact is likely.
9. PHYSICAL AND CHEMICAL PROPERTIES	
Appearance	Clear, colorless or slightly yellow fluid.
Odor	None
pH (20°C)	9.0-10.0
Boiling point	~ 111°C
Flash point	No flash to 100°C
Refractive index (25°C)	1.4090-1.4160
Surface tension (25°C)	Less than 40 dynes/cm
Vapor pressure (20°C)	~ 12 mm Hg
Specific gravity (15°C)	1.094-1.102
Vapor density (air = 1)	~ 1.5 (estimated)
Freezing Point	Lower than -36°C
Viscosity	6-11 cP (20°C), 12-30 cP (0°C), 45-64 cP(-10°C), 77-83 cP (-20°C)
Specific heat	2.1 J/g/°C (20°C), 3.0 J/g/°C (70°C)
Solubility in water	Completely miscible
10. STABILITY AND REACTIVITY	
	Stable under normal storage conditions.
	Incompatible materials – strong oxidising agents.
11. TOXICOLOGICAL INFORMATION	
	Considered to have low oral toxicity. See also section 3.
96 hour LC <sub>50</sub> : (Pimephales Promelas)	2575 mg/L (est)
48 hour LC <sub>50</sub> : (Daphnia Magnia)	4125 mg/L (est)
12. ECOLOGICAL INFORMATION	
COD	0.90 kg O <sub>2</sub> /kg fluid
5 day BOD at 5°C:	Less than 0.01 kg O <sub>2</sub> /kg
5 day BOD at 20°C:	0.003 kg O <sub>2</sub> /kg
28 day BOD at 5°C:	Less than 0.01 kg O <sub>2</sub> /kg
28 day BOD at 20°C:	0.004 kg O <sub>2</sub> /kg
Biodegradability (28 days at 20°C)	0,004
13. DISPOSAL CONSIDERATION	
	Controlled incineration or landfill in accordance with local, state or national regulations.

<b>14. TRANSPORT INFORMATION</b>	
	Not restricted under any transport regulations.
<b>15. REGULATORY INFORMATION</b>	
	Not classified as hazardous under any regulations.
<b>16. OTHER INFORMATION</b>	
	The above information is accurate to the best of our knowledge. However, since data, safety standards, and government regulations are subject to change and the conditions of handling and use or misuse are beyond our control, Arcton, Ltd. makes no warranty, either express or implied, with respect to the completeness or continuing accuracy of the information contained herein and disclaims all liability for reliance thereon. Arcton, Ltd. assumes no responsibility for any injury or loss resulting from the use of the product described herein. User should satisfy himself that he has all current data relevant to his particular use.

Date: November 30, 2012