

GAS/SPEC SRS Specialty Amine

GAS/SPEC® SRS specialty amine is formulated to achieve higher levels of total sulfur removal than generic MDEA (methyldiethanolamine). GAS/SPEC SRS is ideal for applications where carbonyl sulfide removal and moderate CO₂ slip are required. GAS/SPEC SRS has low heats of reaction and low solution corrosivity, allowing gas processors and refiners to increase gas treating capacity and/or reduce energy costs.

* GAS/SPEC is a trademark and service mark of INEOS LLC.

APPLICATIONS

- Natural Gas Treating
- Refinery Systems
- LPG & NGL Treating

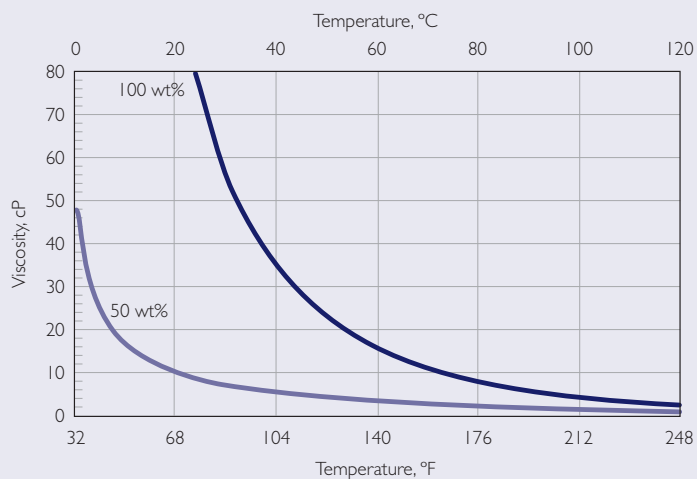
PHYSICAL PROPERTIES ^{1,2}

Specific Gravity @ 25/25° C _____	1.04
Boiling Point @ 760 mmHg _____	173.3 °C
_____	343.9 °F
Freezing Point (50 Wt%) _____	-21.3 °C
_____	-6.3 °F
Freezing Point (100 Wt%) _____	-23.4 °C
_____	-10.1 °F
Latent Heat of Vaporization @ normal boiling point _____	156.43 Btu/lb
_____	86.91 Cal/g
Flash Point (PMCC) _____	> 132 °C
_____	> 270 °F

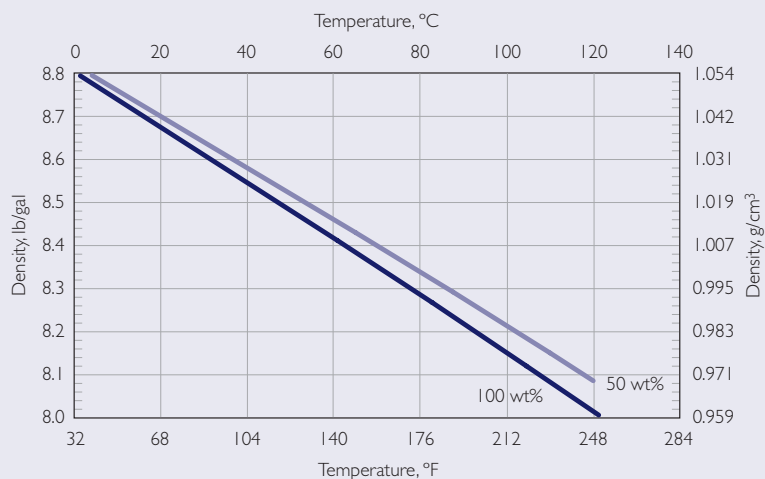
¹GAS/SPEC SRS concentrate. Typical properties, not to be construed as specifications

²100 wt% indicate solvent concentrate as sold, and not a water-free solvent

Viscosity



Density



PRODUCT SERVICES

INEOS offers a broad line of services to our specialty amine customers, including:

- superior simulation capabilities
- troubleshooting consultations
- on-site start-up and optimization
- solvent analysis and interpretation
- local stocking & supply

MATERIALS OF CONSTRUCTION

The preferred material for storage of GAS/SPEC SRS is 304L or 316L stainless steel. Carbon steel tanks are also satisfactory, although discoloration and iron in the amine may occur. Nitrogen padding of the tanks is recommended to prevent oxidation and discoloration of the amine during extended storage. The amine can also be stored in high-density polyethylene (HDPE) or polypropylene (HDPP).

Materials to avoid include:

- Aluminum
- Copper
- Brass
- Copper alloy

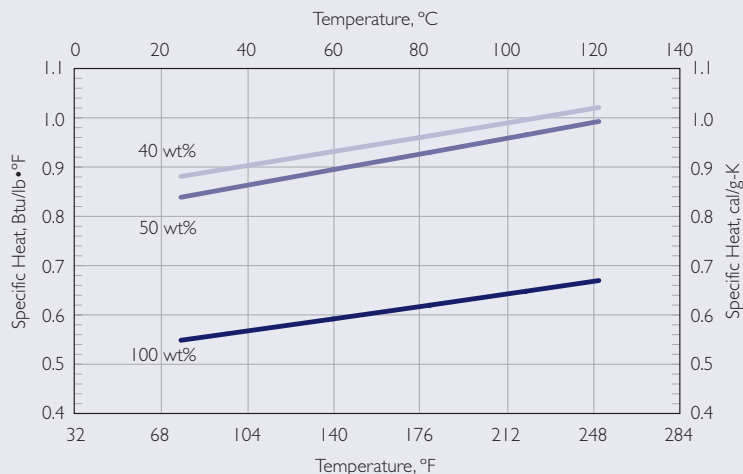
STORAGE TEMPERATURE

- The recommended minimum temperature for storing and pumping 100% GAS/SPEC SRS is 20 °F (-7 °C).
- Dilution of GAS/SPEC SRS with a small amount of water will depress the freezing point and lower the viscosity for pumping.
- Steam tracing and insulation may be required in cold weather:

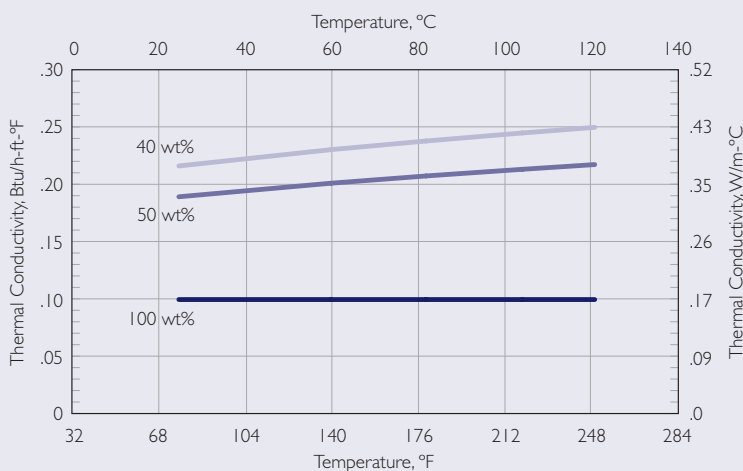
HANDLING AND SAFETY

- GAS/SPEC SRS can cause serious injury to the eyes and may result in permanent eye injury. If accidental contact with the eyes occurs flush them thoroughly with water and seek medical attention.
- Single dose oral toxicity of GAS/SPEC SRS is low.
- Swallowing large amounts of GAS/SPEC SRS may cause severe burns to the mouth, throat, and digestive tract.
- May cause irritation to the skin. Occasional brief contact with the skin should be washed off immediately.
- If GAS/SPEC SRS is heated or a mist produced, concentrations may be sufficient to cause irritation to upper respiratory tract.
- Consult product Material Safety Data Sheet for more details.

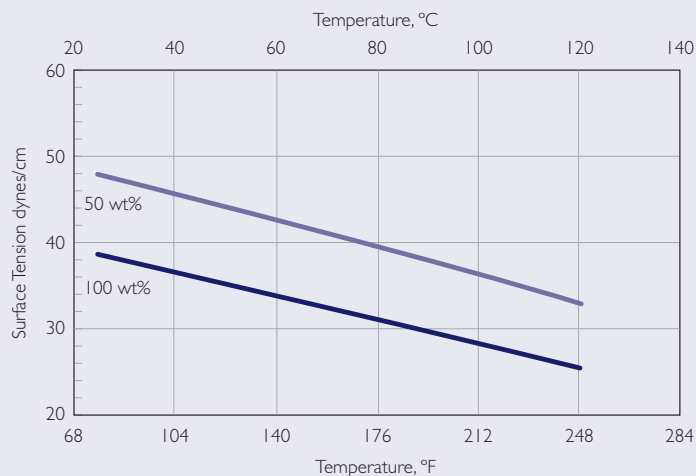
Specific Heat



Thermal Conductivity



Surface Tension



The following precautions should be observed when the possibility of exposure exists:

- A safety shower and eyewash facility located nearby
- Chemical goggles
- Protective clothing, including chemically resistant gloves
- A well-ventilated work area.

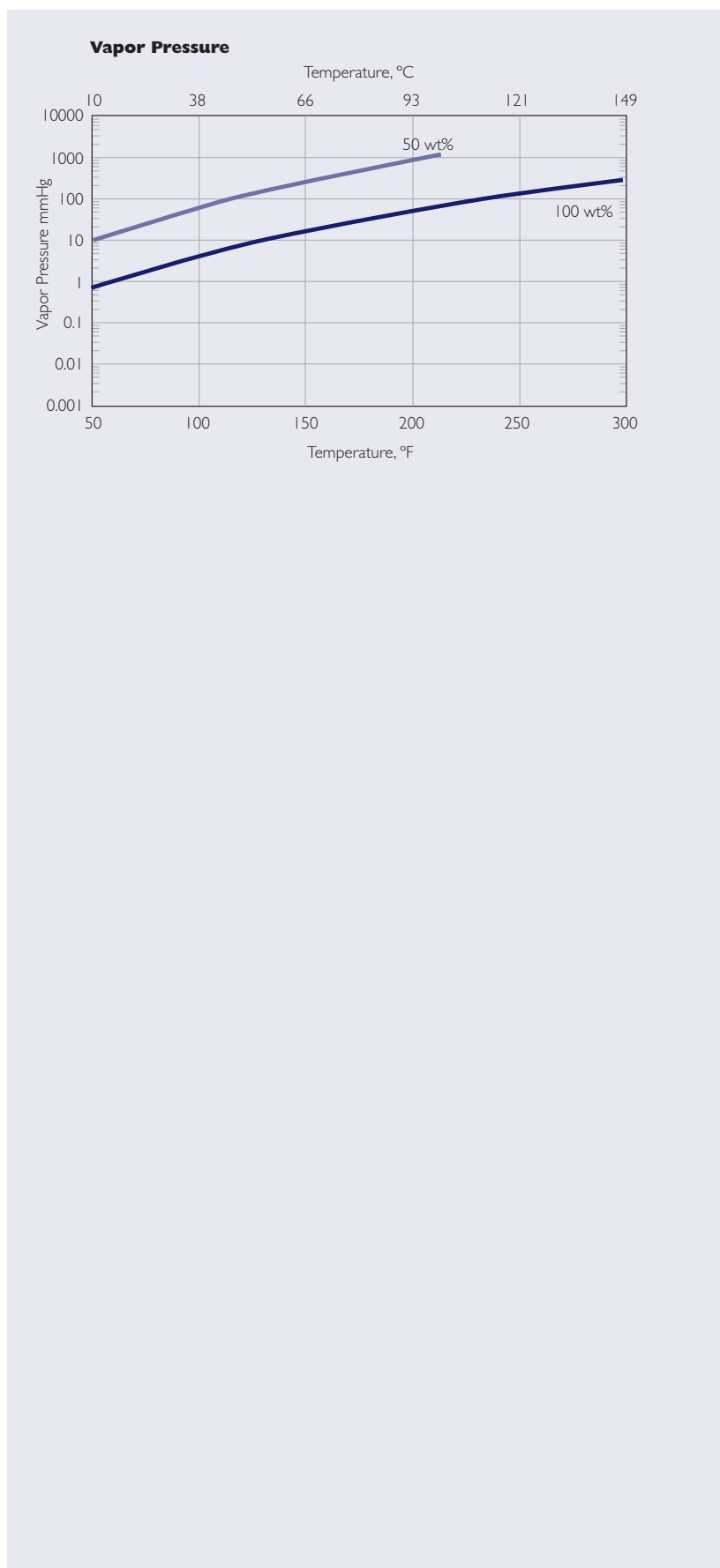
Accidental Release

- Clear non emergency personnel from area.
- PROTECT THE ENVIRONMENT: Keep out of sewers, storm drains, surface waters and soil.
- Contain spill if possible. Clean up with a non-combustible absorbent. Do not use sawdust.

REGULATORY

Regulatory requirements may vary for different locations. Contact your INEOS representative for more information.

- GAS/SPEC SRS is not considered hazardous according to the guidelines of the U.S. Department of Transportation (DOT).
- GAS/SPEC SRS, as sold, contains no chemical subject to the requirements of Section 313 Title III of the U.S. Superfund Amendments and Authorization Act (SARA).
- The export of this product is regulated under the provisions of the Chemical Weapons Convention.



GAS/SPEC

Since 1982, the GAS/SPEC name has represented a special focus on the products, technology and service to chemically remove acid gases from process streams. The GAS/SPEC business unit has been continuously headquartered in Houston, Texas, with its major technical facility in Freeport, Texas.

The family of specialty amines offered by the GAS/SPEC Technology Group, all based on MDEA technology, provides custom H₂S and CO₂ removal in amine treating operations. The GAS/SPEC products and technology are exclusively offered by INEOS LLC and its specialized distributors.

The GAS/SPEC Technology Group is dedicated to achieving the highest degree of customer satisfaction globally through the application of the best available technology through the supply of cost-effective products and services. Other companies offer MDEA based products, some even attempting to emulate GAS/SPEC with similar sounding names... But only products with the GAS/SPEC name bring you the formulations, technology and service you are used to.

INEOS LLC is a part of INEOS Oxide.

INEOS Oxide manufactures a full range of products based on its production of ethylene oxide.

INEOS Oxide

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