

IGS-M-CH-031(2)

Jan.2023

Approved

مصوب



شرکت ملی گاز ایران
مدیریت پژوهش و فناوری
امور تدوین استانداردها

IGS

مشخصات فنی خرید

مواد ضد کف برای سیستم شیرین سازی گاز

Chemical Foam Inhibitors (ANTIFOAM) for Use in Gas Sweetening System



تاریخ: ۱۴۰۲/۰۱/۱۶

شماره: گ/دب/۰/۱۰-۲۱۳۱۵



شرکت ملی گاز ایران



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باسلام،

به استحضار می‌رساند در جلسه ۲۰۰۳ مورخ ۱۴۰۱/۱۲/۱۴ هیأت مدیره، نامه شماره گ/۰۰۰/۹/۲۰۴۲۹۵ مورخ ۱۴۰۱/۱۲/۰۳ مدیر پژوهش و فناوری در مورد تصویب نهایی مقررات فنی شرکت ملی گاز ایران به شرح زیر مطرح و مورد تصویب قرار گرفت.

۱- مشخصات فنی خرید مواد ضد کف برای سیستم شیرین سازی گاز

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Foreword

This standard specification is intended to be mainly used by N.I.G.C. and contractors, and has been prepared base on interpretation of recognized standards and technical documents, as well as knowledge, backgrounds and experiences in gas industries at national and international levels.

Iranian Gas Specification (IGS) are prepared, reviewed and amended by technical standard committees within NIGC standardization division of research and technology management and submitted to "the standards council of NIGC" for approval.

IGSs are subjected to revision, amendment or withdrawal, if required, and thus the latest edition of IGS shall be checked / inquired by NIGC'S users.

This standard must not be modified or altered by NIGC employees or its contractors. Any deviation or conflicts between this specification and other applicable standards, codes, procedure or well-known manufacturer's specifications must be resolved in writing by the user or its representative through Manager, Engineering Department or standardization division of NIGC.

The technical standard committee welcomes comments and feedbacks from concerned or interested corporate and individuals about this standard, and may revise this document accordingly based on the received feedbacks.

General Definitions

Throughout this standard the following definitions, where applicable, should be followed:

- 1- "STANDARDIZATION DIV." is organized to deal with all aspects of industry standards in NIGC. Therefore, all enquiries for clarification or amendments are requested to be directed to mentioned division.
- 2- "COMPANY": refers to National Iranian Gas Company (NIGC).
- 3- "SUPPLIER": refers to a firm who will supply the service, equipment or material to IGS specification whether as the prime producer or manufacturer or a trading firm.
- 4- "SHALL ": is used where a provision is mandatory.
- 5- "SHOULD": is used where a provision is advised only.
- 6- "MAY": is used where a provision is completely discretionary.

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Contents

	Title	Page
1	SCOPE	3
2	REFERENCES	3
3	DEFINITIONS	3
4	SYMBOLS AND ABBREVIATED TERMS	4
5	REQUIREMENTS	4
6	QUALIFICATION PROCEDURE	4
7	SAMPLES	5
8	STORAGE LIFE AND PACKAGING	6
9	INSPECTION AND QUALITY ASSURANCE	6
10	MARKING	7
11	DOCUMENTATION	8
12	APPENDIX A – Questionnaire	9
13	APPENDIX B – Instruction for Monitoring Performance of Antifoam during the Field Test	12
14	APPENDIX C – EO/PO based Antifoam Typical Properties	16
15	APPENDIX D – Silicone based Antifoam Typical Properties	17

1. SCOPE

This standard provides minimum requirements of physical and chemical specification for purchasing of chemical foam Inhibitor (Silicone or EO/PO Based Antifoam) to be used in natural gas sweetening units.

2. REFERENCES

Throughout this specification, the following standards and codes are referred to. The edition of these standards and codes those are in effect at the time of issuing of this standard specification are noted in the references. Applicability of any changes in the standards and codes that may occur after issuing the current specification shall be mutually agreed upon by the purchaser and supplier and/or manufacturer.

ASTM D 7042 (2021) "Standard test method for dynamic viscosity and density of liquids by stabinger viscometer (and the calculation of kinematic viscosity))"

ASTM E 70 (2019) "standard test method for pH of aqueous solutions with the glass electrode"

ASTM D 4052 (2022) "Standard test method for density, relative density and API gravity of liquids by digital density meter"

ISO 2859-10 (2020) "Standard Test Method for Sampling Procedures for Inspection by Attributes"

ISO 3016(2019) "Petroleum and related products from natural or synthetic sources- Determination of pure point"

ISO 2592(2017) "Petroleum and related products- Determination of flash and fire points Cleveland open cup method"

ISO 3951-1 (2013) "Standard Test Method for Sampling Procedures for Inspection by Variables".

3. DEFINITIONS

Antifoam

Anti-foaming agent is a chemical additive that prevents the formation of foam, breaks foam already formed, or be as a de-foamer agent in various industrial processes. There are two Common types of antifoams in gas industry; alcoholic based and silicone base.

Technical Approval

Getting technical approval is the first step for qualification of antifoam in which technical information should be evaluated and approved by technical division.

Laboratory Approval

Getting laboratory approval is the second step for qualification of antifoam in which it should pass the laboratory tests.

Accredited laboratory

In this standard, an accredited laboratory is any laboratory acceptable by NIGC.

Field Test Approval

Getting field test approval is the third step for qualification of antifoam in which it should pass the operational test.

4. SYMBOLS AND ABBREVIATED TERMS

- **EO/PO:** Polyoxyethylene - Polyoxypropylene alcohol
- **MSDS:** Material safety data sheet
- **QA:** Quality assurance
- **AQL:** Acceptable quality limit
- **MESC:** Material and equipment's standard and codes

5. REQUIREMENTS

The supplier shall give full details of the proposed antifoam including types, chemical base and physical and chemical properties. The proposed antifoam shall also meet the following requirements:

- To be able to depress foaming in gas sweetening unit as specified in annex C (INFORMATIVE).
- It shall not cause any side effect such as corrosion, erosion, precipitation, fouling, etc. to the system.
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6. QUALIFICATION PROCEDURE

The supplier shall pass following steps respectively as well as all requirements of this standard specification:

6.1 Technical Approval (Step 1)

The supplier of antifoam shall provide information including original technical catalogue, MSDS and manufacturing product data sheet. The technical division shall evaluate information the antifoam shall be approved by technical division.