



उत्पाद मानुयल
ACID OIL - SPECIFICATION
IS 12029:2023 के अनुसार
PRODUCT MANUAL FOR
ACID OIL - SPECIFICATION
ACCORDING TO IS 12029:2023

भारतीय मानक ब्यूरो (अनुरूपता मूल्यांकन) विनियम 2018 की स्कीम-I के तहत यह उत्पाद मानुयल प्रमाणीकरणके प्रचलन में रीति और पारदर्शिता के सुसंगत सुनिश्चित करने के लिए सभी क्षेत्रीय/शाखा कार्यालयों एवं लाइसेन्स धारियों द्वारा संदर्भ सामग्री के रूप में उपयोग किया जाएगा। बीआईएस लाइसेन्स/प्रमाण पत्र प्राप्त करने के इच्छुक भावी आवेदकों द्वारा भी इस दस्तावेज़ का उपयोग किया जा सकता है।

This Product Manual shall be used as reference material by all Regional/Branch Offices & licensees to ensure coherence of practice and transparency in operation of certification under Scheme-I of Bureau of Indian Standards (Conformity Assessment) Regulations, 2018 for various products. The document may also be used by prospective applicants desirous of obtaining BIS certification licence /certificate.

1.	उत्पाद Product	:	IS 12029:2023
	शीर्षक Title	:	Acid Oil - Specification
	संशोधन संख्या No. of Amendments	:	Nil
2.	नमूनाकरण दिशा निर्देश Sampling Guidelines:		
a)	कच्चा माल Raw material	:	Manufacturer to submit declaration/ undertaking for Iodine Value, in compliance to Clause 4.1 of IS 12029:2023
b)	समूहिकरण दिशा निर्देश Grouping guidelines	:	None
c)	नमूने का परिमाण Sample Size	:	1 litre
3.	परीक्षण उपकरणों की सूची List of Test Equipment	:	कृपया Annex-A देखें Please see Annex – A
4.	निरीक्षण व परीक्षण स्कीम Scheme of Inspection and Testing	:	कृपया Annex-B देखें Please see Annex – B

5.	एक दिन में संभावित परीक्षण Possible tests in a day :	
	(i) Total fatty matter (ii) Moisture and Volatile matter (iii) Free fatty acids (iv) Free Mineral acid (as H ₂ SO ₄) (v) Unsaponifiable matter (vi) Oxidized fatty acids (vii) Iron (viii) Ash	
6.	लाइसेन्स का कार्यक्षेत्र / Scope of the Licence:	
	IS 12029:2023 के अनुसार मानक मुहर का उपयोग करने के लिए लाइसेन्स निम्नलिखित कार्यक्षेत्र के लिए प्रदान किया जाता है “Licence is granted to use Standard Mark as per IS 12029:2023 with the following scope:	
	उत्पाद का नाम Name of the product	Acid oil

BUREAU OF INDIAN STANDARDS
Manak Bhawan,
9, Bahadur Shah Zafar Marg,
New Delhi – 110002

ANNEX-A
TO THE PRODUCT MANUAL
FOR ACID OIL-SPECIFICATION
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List of Test Equipment

Major test equipment required to test as per requirements of Indian Standard.

S. No.	Tests used in with Clause Reference	Test Equipment
1	Total fatty matter (TFM) (Clause 4.2) Table-1, Sl No (i)	(i) Analytical Balance (ii) Hot Plate (iii) Hot Air Oven (iv) Water Bath (v) Sulphuric Acid (vi) Methyl Orange Indicator (vii) Sodium Chloride (viii) Ethyl Ether (ix) Sodium Hydroxide (x) Hydrochloric Acid (xi) Acetone (xii) Stop Watch (xiii) Glass ware such as Separating Funnel, Conical Flask Measuring cylinder etc
2	Moisture and Volatile matter Clause 4.2, Table 1, Sl. No. (ii)	<u>Oven Method</u> (i) Analytical Balance (ii) Air Oven (iii) Petri Dishes of 6-8cm diameter and 2-4 cm depth (iv) Stopwatch OR <u>Distillation Method</u> (i) Apparatus as per Fig 1 of IS 286 which consists of Distillation Flask, Condenser, receiver Heating Mantle and Copper wire. (ii) Potassium Dichromate- Sulphuric acid cleaning solution (iii) Xylene/Toluene (iv) Stopwatch
2	Free fatty Acids Clause 4.2, Table 1, Sl. No. (iii)	(i) Analytical Balance (ii) Ethyl Alcohol (iii) Phenolphthalein Indicator Solution (iv) Standard Aqueous Potassium Hydroxide or Sodium Hydroxide Solutions (v) Glassware such as conical flask, measuring jar burette etc
3	Free Mineral Acid, Clause 4.2, Table 1, Sl. No. (iv)	(i) Analytical Balance (ii) Methyl Orange indicator (iii) Standard Potassium Hydroxide solution (iv) Separating Funnel (v) Glassware such as conical flask, measuring jar

		burette etc
4	Unsaponifiable Matter, Clause 4.2, Table 1,Sl. No. (v)	(i) Hot Air Oven (ii) Analytical balance (iii) Flat bottomed or conical flask (iv) Heating Mantel or Hot plate (v) Separating funnel (vi) Alcoholic KOH (vii) Phenolphthalein indicator (viii) Ethyl Alcohol (ix) Petroleum Ether (x) Standard Sodium Hydroxide Solution (xi) Acetone
5	Oxidized fatty acids (Clause 4.2, Table-1, Sl No:vi	(i) Stoppered Glass Cylinder — 250 ml capacity (ii) Separating Funnel — 500 ml capacity (iii) Flasks — 250 ml capacity, flat bottom; and 300 ml capacity, conical (iv) Alcoholic Potassium Hydroxide Solution (v) Dilute Hydrochloric Acid (vi) Methyl Orange Indicator (vii) Petroleum Ether (viii) Ethyl Ether (ix) Analytical balance (x) Separating funnel (xi) Water Bath
6	Iron, (Clause 4.2, Table-1, Sl No:vii	(i) Spectrophotometer (ii) Liquor Ammonia— relative density 0.9 (iii) Dilute Sulphuric Acid — 50 percent (v/v) (iv) Citric Acid (Aqueous Solution)-50 percent (v/v) (v) Thioglycollic Acid (Aqueous Solution) (vi) Standard Iron Solution (vii) Methyl Red Indicator (viii) Analytical balance
7	Ash, Clause 4.2, Table 1,Sl. No. (viii)	(i) Silica Dish — 100 ml capacity (ii) Analytical balance, (iii) Muffle furnace (550±10°C) (iv) Platinum Crucible (v) Desiccator

The list above is indicative only and may not be taken as exhaustive.

ANNEX B
TO PRODUCT MANUAL
FOR ACIDIC OIL - SPECIFICATION
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Scheme of Inspection and Testing

1. LABORATORY - A laboratory shall be maintained which shall be suitably equipped (as per the requirement given in column 2 of Table 1) and staffed, where different tests given in the specification shall be carried out in accordance with the methods given in the specification.

1.1 The manufacturer shall prepare and implement a calibration plan for the test equipments.

2. TEST RECORDS – The manufacturer shall maintain test records for the tests carried out to establish conformity.

3. PACKING AND MARKING- –The Standard Mark(s) as given in the Schedule of the licence shall be marked on each container or printed on the label applied to the container as the case may be, provided always that the material in each container to which this mark is applied conforms to the requirements of the specification.

3.1 PACKING - The material shall be packed in suitable form of packing as per provisions of clause 5.1 of IS 12029:2023.

3.2 MARKING - The information as mentioned under clause 5.2.1 of IS 12029:2023 shall be legibly and indelibly marked on each container. In addition, the following shall be incorporated on each container:

- i) BIS Licence No. (CM/L.....)
- ii) For details of BIS certification details please visit www.bis.gov.in.

3.2.1 For transportation and supplies of Acid Oil in tankers, the Standard Mark as given in Schedule of the licence and Licence Number (i.e. CM/L.....) shall be incorporated on a test certificate to be provided along with each tanker as per the format at Appendix-1 enclosed, provided always that the product thus marked conforms to all the requirement of the specification. Packing shall be done as per provisions of Indian Standard and the details as per Cl 5.2.1 of IS 12029:2023 shall also be indicated on the test certificate.

4. CONTROL UNIT – For the purpose of this scheme, the entire quantity of Acid Oil manufactured and filled continuously in a day, shall constitute a Control Unit.

5. LEVELS OF CONTROL – The tests as indicated in column 1 of Table 1 and the levels of control in column 3 of Table 1, shall be carried out on the entire production of the factory which is covered by this scheme and appropriate records maintained in accordance with paragraph 2 above.

5.1 All the production which conforms to the Indian Standard and covered by this licence shall be marked with the Standard Mark.

6. REJECTIONS –Disposal of non-conforming product shall be done in such a way so as to ensure that there is no violation of provisions of BIS Act, 2016.

TABLE 1 (Levels of Control)
(Para 5 of Scheme of Inspection and Testing)

(1)				(2)	(3)		
Test Details				Test equipment requirement R: required (or) S: Sub-contracting permitted	Levels of Control		
Cl.	Requirement	Test Method Cl. Ref.	Test Method IS		No. of Sample	Frequency	Remarks
4.2	Total fatty matter	16	IS 286	R	One	Each control unit	
4.2, Table 1	Moisture and volatile matter content	5	IS 286	R	One	Each control unit	
4.2, Table 1	Free fatty acids	8	IS 548(Part-1/Sec2)	R	One	Each control unit	
4.2, Table 1	Free mineral acid	Annex A-2	IS 12029	R	One	Each control unit	
4.2, Table 1	Unsaponifiable matter	9	IS 548(Part-1/Sec2)	R	One	Each control unit	
4.2, Table 1	Oxidized fatty acid	Annex A-3	IS 12029	R	One	Each control unit	
4.2, Table 1	Iron	Annex A-4	IS 12029	R	One	Each Control unit	
4.2, Table 1	Ash	Annex A-5	IS 12029	R	One	Each Control unit	

Note-1: Whether test equipment is required or sub-contracting is permitted in column 2 shall be decided by the Bureau and shall be mandatory. Sub-contracting is permitted to a laboratory recognized by the Bureau or Government laboratories empaneled by the Bureau.

Note-2: Levels of control given in column3 are only recommendatory in nature. The manufacturer may define the control unit/batch/lot and submit his own levels of control in column 3 with proper justification for approval by BO Head.

Appendix-1
TEST CERTIFICATE

XYZ COMPANY (REGISTERED OFFICE ADDRESS AND WORKS ADDRESS)
TEST CERTIFICATE FOR ACID OIL

TEST CERTIFICATE NO. _____ DATED _____

SUPPLIED TO M/s _____ (Name and Address of Consignee)

It is certified that the material described below fully conforms to IS 12029:2023.

The properties of the product, as tested in accordance with the Scheme of Inspection and Testing contained in the BIS Certification Marks Licence No. CM/L _____ are as indicated below against each order no. etc.

(PLEASE REFER TO IS 12029:2023 FOR DETAILS OF SPECIFICATION REQUIREMENTS)

TEST RESULTS

Order no and date	Name of the material	Requirement	Observed Value	Control Unit/ Batch Number	Month and Year of Packaging	Quantity	Remarks
		Total fatty matter					
		Moisture and Volatile matter content					
		Free fatty acids					
		Free Mineral acid (as H ₂ SO ₄)					
		Unsaponifiable matter					
		Oxidized fatty acids					
		Iron					
		Ash					

The material supplied conforms to specified requirements of IS 12029:2023.

REMARKS:

Tank Car / Tank Truck / Container ship no.

(Signature)
For XYZ Company

MATERIAL SUPPLIED BY

Name and Address of manufacturer:

Recognized Trade Mark if any:

“For details of BIS certification please visit www.bis.gov.in”