

Ecomark Criteria for Lubricating Oils

General Requirements:

- All lubricating/specialty oils shall meet relevant Indian Standards notified by Bureau of Indian Standards (BIS).
- The product manufacturer must produce the consent clearance as per the provision of Water (Prevention and Control of Pollution) Act, 1974, Water (Prevention and Control of Pollution) Cess Act, 1977 and Air (Prevention and Control of Pollution) Act, 1981 respectively along with the authorisation, if required under Environment (Protection) Act, 1986 and rules made thereunder to Bureau of Indian Standards while applying for the Ecomark.
- The product must display the list of critical ingredients in descending order of quantity present in per cent by weight, to be decided by BIS.
- The product packaging may display in brief the criteria based on which the product has been labelled Environment Friendly.
- The material used for product packaging shall be recyclable, reusable or biodegradable.
- The product package or leaflet accompanying it may display instructions of proper use, storage, transport and recommend disposal guidelines after use and safe handling precautions so as to maximise the product performance and minimise wastage.

Product Specific Requirements:

- Lubricating Oils (Virgin) Following categories of oil are included :
 - a) Lubricants: Vegetable Oil based
 - b) Lubricants: Other than Vegetable Oil based

The product must not have toxic effect on aquatic organisms. EC 50/LC 50 shall not be less than 1.0 mg/litre.

The base oil, additives and formulated products must have per cent biodegradability as mentioned below:

Lubricants Biodegradability Minimum

- Lubricants (Vegetable Oil based) 90%
- Lubricants (other than Vegetable Oil based) 60%
- The above mentioned per cent biodegradability shall be tested as per OECD test method CEC-L-33-T-82, 21 days.
- The product shall not contain toxic metals such as lead and barium. Antimony shall not be used in concentration beyond 0.25% when tested as per AAS method.
- The product must not contain halogenated products such as PCBs, PCTs and PBTs as well as Nitrites.

Note: The manufacturer shall provide documentary evidence by way of certificate or declaration to this effect to Bureau of Indian Standards while applying for Ecomark.

- Formulated Lubricants from Re-claimed/Re-refined Oils
- The product shall contain more than 50% by volume re-refined/recycled products, reclaimed through environmentally compatible re-refining process.

Note 1: The manufacturer shall provide documentary evidence by way of certificate or declaration to this effect to Bureau of Indian Standards while applying for Ecomark.

Note 2: The lubricants containing more than 2000 ppm of Halogens or more than 20 ppm of PCBs should be treated as Hazardous Waste and therefore shall not be re-refined/re-claimed.

The product shall meet the product specific requirements as per lubricating oils (Virgin)

The incorporation of the Ecomark requirements, in the following BIS standards are under process:

| Indian Standards | Year of Incorporation | Description |
|--|-----------------------|---|
| IS 493(Pt-I): 1981 Reaffirmed Year 2009 | - | General purpose machinery and spindle oils Part 1 : Machinery Oils |
| IS 493(Pt-II):1981 Reaffirmed Year 2009 | - | General purpose machinery and spindle oils Part II: Spindle Oils |
| IS 1012:2002, Reaffirmed Year 2009 | - | Turbine Lubricating oils |
| IS 1083:1978, Reaffirmed Year 2007 | - | Industrial white oil |
| IS 1088:1987 Reaffirmed Year 2009 | - | Lubricants for clock like mechanisms and precision instruments |
| IS 1115:1986 Reaffirmed Year 2007 | - | Cutting oil soluble |
| IS 1118:1992 Reaffirmed Year 2007 | - | Industrial white oil |
| IS 1277:1987 | Inactive | Gear lubricants, regular |
| IS 1589:1994 Reaffirmed Year 2011 | - | Oil, cylinder |
| IS 1628:1986 Reaffirmed Year 2007 | - | Axle Oil |
| IS 1758:1986 Reaffirmed Year 2007 | - | Jute batching oil |
| IS 2297:1997 Reaffirmed Year 2009 | - | Gear lubricants, compounded |
| IS 2660:1964, Reaffirmed Year 1990 | Inactive | Oil, cylinder grade 4 |
| IS 2664:1980 Reaffirmed Year 2009 | - | Quenching oil |

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| IS 3065:1985 Reaffirmed Year 2007 | - | Cutting oil, neat |
| IS 3098:1983 Reaffirmed Year 2009 | - | Oil, hydraulic mineral oil type |
| IS 4578:1997 Reaffirmed Year 2009 | - | Lubricating oils for refrigeration machinery |
| IS 8406:1993 Reaffirmed Year 2011 | - | Gear lubricants for enclosed industrial gear drives |
| IS 6552:1987, Reaffirmed Year 2009 | - | Straight mineral high demulsibility oils |
| IS 8654:2001, Reaffirmed Year 2011 | - | Automotive hydraulic brake fluid, heavy duty |
| IS 9182(Pt I):1993, Reaffirmed Year 2009 | - | Lubricating for wire ropes and fibre cores : Part 1 Lubricants for fibre core of wire ropes |
| IS 9182 (Pt II): 1993, Reaffirmed Year 2009 | - | Specification for Lubricants for wire ropes and fibre cores: Part II Lubricants for wire strands and ropes. |
| IS 9182 (Pt III): 1993, Reaffirmed Year 2009 | - | Specification for lubricants for wire ropes and Fibre cores: Part III Lubricants for rope dressing in service. |
| IS 9554:1980 Reaffirmed Year 2009 | - | Lubricants for open gears |
| IS 9611:1980 Reaffirmed Year 2009 | - | Cutting oil soluble, clear |
| IS 10522:1983 Reaffirmed Year 2009 | - | Antiwear hydraulic oil |
| IS10532(Part I): 1983 Reaffirmed Year 2009 | - | Fire resistant hydraulic fluids : Part I Dilute emulsions for powered supports |
| IS 10532 (Part II): 1983 Reaffirmed Year 2009 | - | Fire resistant hydraulic fluids : Part II Invert emulsions water-in-oil type |
| IS 10532 (Part III): 1983 Reaffirmed Year 2009 | - | Fire resistant hydraulic fluids : Part III Water glycol type |
| IS 10532 (Part IV): 1983 Reaffirmed Year 2009 | - | Fire resistant hydraulic fluids : Part IV Phosphate ester type |
| IS 10532 (Part V): 2016 | - | Fire Resistant Hydraulic Fluids - Part V Organic Ester Type |
| IS 11186 : 1985 Reaffirmed Year 2009 | - | Synthetic grinding fluid |
| IS 11656 : 1986 Reaffirmed Year 2007 | - | Antiwear hydraulic oil extra heavy duty type |
| IS 11695 : 1986 Reaffirmed Year 2007 | - | Inhibited type machinery oil |
| IS 11696 : 1986 Reaffirmed Year 2007 | - | Specification for inhibited type spindle oil |
| IS 12927 : 2004 Reaffirmed Year 2009 | - | Glass moulding oil, non-graphited |

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|---|---|---|
| IS 13256 : 1992 Reaffirmed Year 2009 | - | Air compressor lubricants - types DAA and DAB |
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Source: http://cpcb.nic.in/EnvironmentPlanning/Eco-label/lubricating_oils.pdf