SRI LANKA STANDARD 820:1988

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TOLERANCE LIMITS FOR EFFLUENTS FROM TANNING INDUSTRY

SRI LANKA STANDARDS INSTITUTION

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SLS 820:1988

Gr. 3

SRI LANKA STANDARDS INSTITUTION
53, Dharmapala Mawatha,
Colombo 3,
Sri Lanka.

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This standard does not purport to include all the necessary provisions of a contract.

SRI LANKA STANDARD

TOLERANCE LIMITS FOR EFFLUENTS FROM TANNING INDUSTRY

FOREWORD

This Sri Lanka Standard was authorized for adoption and publication by the Council of the Sri Lanka Standards Institution on 1988-06-07, after the draft, finalized by the Drafting Committee on Industrial Effluents, had been approved by the Chemicals Divisional Committee.

The tolerance limits prescribed in this standard are intended to guide the local authorities in framing rules regarding disposal of effluents from tanning industry. In arriving at a decision on the tolerance limits and site selection the authorities shall, in consultation with the Central Environmental Authority (CEA), give due consideration to the local conditions.

Tolerance limits for colour and odour have not been prescribed in this standard but it is recommended that as far as practicable, colour and unpleasant odours shall not be present in effluents.

The standard values given in this standard are in SI units.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated expressing the result of a test or an analysis, shall be rounded off in accordance with CS 102. The number of significant places retained in the rounded off value shall be same as that of the specified value in this standard.

In the preparation of this standard the assistance obtained from the publications of the Bureau of Indian Standards, the American Public Health Association and the World Health Organization is gratefully acknowledged.

TABLE - Tolerance limits for effluents from tanning industry

Sl. No.	Determinant	Tolerance limits for effluents		Method of test (Ref. to publication in Clause 5)	Technique of the method
		discharged into inland surface waters	discharged into marine coastal areas		
(1)	(2)	(3)	(4)	(5)	(6)
i)	pH value at ambient temperature	5.5 to 9.0	5.5 to 9.0	a	Electrometry, by means of pH meter with a glass electrode (Reference method)
				b	Colorimetry
ii)	Total suspended solids, mg/l, max.	100	150	a	Glass fibre filtration 103 °C to 105 °C post washing of residue
iii)	Biochemical oxygen demand (BOD), mg/l, max.	60	100	b	Incubation for 3 days at ambient temperature Incubation for 5 days at 20 °C (Reference method)
iv)	Chemical oxygen demand (COD), mg/l, max.	250	300	a	Dichromate reflux
v)	Alkalinity (as $CaCO_3$), mg/l, max.	750	na*	a	Titrimetry visual titration (Reference method)
				b	Titrimetry electrometric method
vi)	Chloride (as Cl), mg/l, max.	1 000	na*	a	Titrimetry silver nitrate method (Reference method)
				a	Titrimetry mercuric nitrate method
vii)	Hexavalent chromium mg/l, max.	0.5	0.5	a	Chlorimetry-diphenyl carbazide method
viii)	Chromium total, mg/l, max.	2.0	2.0	a	Atomic absorption spectrophotometric method
ix)	Oils and greases, mg/l, max	10.0	20.0	a	Gravimetry liquid-liquid extraction with trichloro-trifluoro-ethane
x)	Phenolic compounds (as phenolic OH), mg/l, max.	1.0	5.0	a	Colorimetry-chloroform extraction method
xi)	Sulfides, mg/l, max.	2.0	5.0	a	Titrimetric-iodine method
				b	Methylene blue method (Reference method)

Not applicable.

1 SCOPE

This standard prescribes tolerance limits and methods of sampling and test for effluents from tanning industry after treatment before dilution at the point of discharge into inland surface waters and marine coastal waters.

2 REFERENCES

APHA-AWWA-WPCF Standard methods for the examination of water and waste water.

UNESCO/WHO Global environmental monitoring systems water operational guide.

CS 102 Presentation of numerical values.

SLS 652 Tolerance limits for industrial effluents discharged into inland surface waters.

3 REQUIREMENTS

Effluents from tanning industry shall comply with the tolerance limits specified in the table.

4 SAMPLING

Representative samples of the effluent shall be obtained as prescribed in 4 of SLS 652:1984.

5 METHODS OF TEST

5.1 Samples obtained as described in 4 shall be tested for the relevant requirements of the standard as prescribed in the following publications.

a) American Public Health Association (APHA), American Water Works Association (AWWA) and Water Pollution Control Federation (WPCF); Standard methods for the examination of water and waste water: 15th ed. New York, APHA.

b) UNESCO/WHO
Global environmental monitoring systems water operational guide, 1978.

5.2 For certain determinants two test methods have been given in the table. The reference method shall be used in case of dispute.

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SRI LANKA STANDARDS INSTITUTION

The Sri Lanka Standards Institution (SLSI) is the National Standards Organization of Sri Lanka established under the Sri Lanka Standards Institution Act No. 6 of 1984 which repealed and replaced the Bureau of Ceylon Standards Act No. 38 of 1964. The Institution functions under the Ministry of Science & Technology.

The principal objects of the Institution as set out in the Act are to prepare standards and promote their adoption, to provide facilities for examination and testing of products, to operate a Certification Marks Scheme, to certify the quality of products meant for local consumption or exports and to promote standardization and quality control by educational, consultancy and research activity.

The Institution is financed by Government grants, and by the income from the sale of its publications and other services offered for Industry and Business Sector. Financial and administrative control is vested in a Council appointed in accordance with the provisions of the Act.

The development and formulation of National Standards is carried out by Technical Experts and representatives of other interest groups, assisted by the permanent officers of the Institution. These Technical Committees are appointed under the purview of the Sectoral Committees which in turn are appointed by the Council. The Sectoral Committees give the final Technical approval for the Draft National Standards prior to the approval by the Council of the SLSI.

All members of the Technical and Sectoral Committees render their services in an honorary capacity. In this process the Institution endeavours to ensure adequate representation of all view points.

In the International field the Institution represents Sri Lanka in the International Organization for Standardization (ISO), and participates in such fields of standardization as are of special interest to Sri Lanka.

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