



Persian Nevisa International

PNI Ecosafe - 98

TOXICITY CLASSIFICATION AND REFERENCE DATA

Technical summary

Compilation of comparative LC50 and LD50 source values, Hodge and Sterner oral-toxicity context, precautionary interpretation and source-attribution controls.

Private-label owner: Persian Nevisa International
CEO: Mr. Shahriar Mehdizadeh

793

ug/L LC50

Technical Reference Report 2026

Use the final approved SDS for regulatory classification

1. Toxicity Reference Summary

This document compiles source toxicity and ecotoxicity information for the private-label PNI Ecosafe - 98. The comparison data are reference values and do not replace the approved Safety Data Sheet, regulatory classification or product-specific testing.

Chemical	LC50 - rainbow trout (micrograms/L)	Oral LD50 - rat (mg/kg)
Cyanide	28	4.3-15
CuSO4.2H2O	750	482
ZnCl2	550	329
PNI Ecosafe - 98 - source formulation data	793	584*
HgCl2	84.5 (48 h)	-

*The supplied source set also contains an SDS value of 485 mg/kg and a wider 584-680 mg/kg range in another profile. A final certified oral LD50 must be confirmed before regulatory submission or public claims.

Interpretation

The AGAT source certificate reports a rainbow-trout LC50-96h of 0.793 mg/L. A higher LC50 value indicates that a higher concentration was required to produce the specified acute effect under the test conditions. Results cannot be extrapolated without considering test species, duration, formulation, exposure route and applicable regulations.

2. Hodge and Sterner Oral Toxicity Scale

Class	Common term	Oral LD50 - single dose to rats (mg/kg)
1	Extremely toxic	1 or less
2	Highly toxic	1-50
3	Moderately toxic	50-500
4	Slightly toxic	500-5,000
5	Practically non-toxic	5,000-15,000
6	Relatively harmless	Greater than 15,000

Using the 584 mg/kg source value, the formulation falls within the numerical range commonly described as **slightly toxic** under this oral scale. Using 485 mg/kg would place it at the upper end of the moderately toxic range. Therefore, PNI does not assign a final regulatory class in this document and requires confirmation against the certified SDS value accepted in the destination market.

Precautionary statement

- Lower acute toxicity than cyanide does not mean the product is non-hazardous.
- Use protective gloves, eye/face protection, suitable respiratory protection for dust and protective clothing.
- Prevent ingestion, inhalation and release to watercourses.
- Restrict access to process vats, ponds and solution-management areas.
- Follow the current approved SDS, transport classification and local environmental requirements.

Source references

1. Kovacs, T. et al. (1982), acute toxicity of cyanide to rainbow trout.
2. NTP Technical Report on Toxicity Studies of Sodium Cyanide, NIH Publication 94-3386.
3. Smyth, H.F. Jr. et al. (1969), joint toxic action of industrial chemicals.
4. Brown, V.M. and Dalton, R.A. (1970), acute lethal toxicity to rainbow trout of metal mixtures.
5. EPA-600/3-78-094 (1978), acute toxicity of zinc to trout.
6. AGAT Laboratories ecotoxicity test, work order 19M515583, reported 2019-10-04.

3. Document Control and PNI Contact

Source integrity

The independent AGAT certificate separately provided with this document names Eco-Goldex Inc. as the original client and John Guo as the attention contact. PNI has not changed the original client identity, signatures, seals, work order or laboratory result. The source result is referenced for the private-label formulation.

Document limitations

- This report is a commercial technical compilation, not a new laboratory certificate.
- Final classification must be based on the current PNI Ecosafe - 98 SDS, complete formulation data and destination-market requirements.
- Any marketing claim must reproduce the test conditions and avoid unsupported generalization.

Field	Details
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