



Sig Tests®

SIG SULPHIDE®



What is the test?

The test consists of a screw capped, glass tube, half filled with a selective microbiological culture medium that semi-quantitatively indicates the presence of sulphide generating bacteria by the rate and extent of the development of a black colour. Sample is added to the tube which is kept warm (incubated) for up to seven days; results are examined regularly.

What is the Sig Sulphide test used for?

The Sig Sulphide Test is used to detect the presence of microorganisms that can generate corrosive Sulphide e.g. Sulphate Reducing Bacteria (SRB).

Who can use the test?

Full instructions are supplied and no special training is required to use the Sig Sulphide Test.

What can I test with the Sig Sulphide test?

- Bilge water
- Ballast water
- Fuel tank bottom water
- Metal working fluids
- Process waters
- Lubricants
- Environmental waters
- Metal surfaces which are prone to attack by SRB. A swab can be used to swab surfaces or corrosion pits and the swab is thrust into a Sig Sulphide tube.

What are the tests advantages?

- Quick, easy and safe to use
- Heavy infection is detected overnight
- Much faster than the standard laboratory test method NACE-TM0-194



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- Simple to read results
- Results are semi quantitative and give an indication of the severity of an infection and the corrosion risk
- Many times cheaper than a laboratory test for sulphide generating organisms
- On-site indication of a potential health hazard from poisonous Hydrogen Sulphide

Background information

Metal working fluids, cooling waters, closed water systems (heating/cooling), process waters, bilge waters, ballast waters, lubricants, paper pulp, fuels, crude oil and sea water can all contain sulphur in varying forms such as sulphate, sulphite, sulphonate, sulphurised oil and mercaptans. These can all be converted to sulphide by consortia of microorganisms containing both aerobic and anaerobic bacteria.

The anaerobic bacteria in the consortia are usually referred to as Sulphate Reducing Bacteria (SRB). Biochemical reduction of these sulphur compounds often leads to hydrogen sulphide gas being produced by SRB as an end product.

Hydrogen sulphide gas is not only an unpleasant smelling gas and skin irritant but it is more toxic than hydrogen cyanide and can kill. Hydrogen sulphide stains and corrodes ferrous and non-ferrous metals, stone and concrete and it discolours cutting fluids and fuel tank water bottoms.

Sulphide generating bacteria cause rapid pitting corrosion of steel in contact with process water, ships' bilge water, sludges, crude oil and fuel tank water bottoms, detergent washes, and various chemical solutions and slurries.

Sulphide production from emulsifying components (e.g. petroleum sulphonates) leads to emulsion instability.



Pitting Corrosion caused by SRB

What about Support?

ECHA provides full technical support to all of its customers, and will never leave you with an unresolved issue. Whether its support with interpretation of results or advice on testing regimes, ECHA will always be on hand with the technical knowledge and operation know-how you need. If you require our assistance please call the number listed below.

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For more information on how to order this product, please contact a member of our Sales Team using any of the details below. You can also find more information on our website.

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