

Safety Data Sheet

SECTION 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

Catalog Number: XAN-5084
Product Name: OxiSelect™ Free Hydrogen Sulfide Gas Assay Kit
Recommended Use: Laboratory Research Reagents

MANUFACTURER:

Cell Biolabs, Inc.
5628 Copley Drive
San Diego, CA 92111

EMERGENCY CONTACT:


+1 858 271 6500
info@cellbiolabs.com

SECTION 2. HAZARDS IDENTIFICATION

Polymer Matrix (Part No. 50842A): Two 1.5 mL vials

Classification:

Flammable liquids, Category 2 (H225)
Oxidizing liquids, Category 1 (H271)
Corrosive to metals, Category 1 (H290)
Acute toxicity, Oral, Category 4 (H302)
Skin corrosion, Category 1B (H314)
Serious eye damage, Category 1 (H318)
Specific target organ toxicity - repeated exposure, oral, Category 2, Gastrointestinal tract (H373)
Specific target organ toxicity - single exposure, Category 3, Central nervous system (H336)


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| Pictogram |  |
| Signal Word | Danger |
| <p>Hazard Statements: Highly flammable liquid and vapour (H225), May cause fire or explosion; strong oxidizer (H271), May be corrosive to metals (H290), Harmful if swallowed (H302), Causes severe skin burns and eye damage (H314), Causes serious eye damage (H318), May cause drowsiness or dizziness (H336), May cause damage to organs (thyroid) through prolonged or repeated exposure (H373).</p> | |
| <p>Precautionary Statements: Keep away from heat/sparks/open flames/hot surfaces. No smoking (P210), Keep/Store away from clothing/combustible materials (P220), Take any precaution to avoid mixing with combustibles (P221), Keep container tightly closed (P233), Keep only in original container (P234),</p> | |

Ground/bond container and receiving equipment (P240), Use explosion-proof electrical/ventilating/lighting/equipment (P241), Use only non-sparking tools (P242), Take precautionary measures against static discharge (P243), Do not breathe dust or mist (P260), Avoid breathing dust/fume/gas/mist/vapors/spray (P261), Wash skin thoroughly after handling (P264), Do not eat, drink, or smoke when using this product (P270), Use only outdoors or in a well-ventilated area (P271), Wear protective gloves/protective clothing/eye protection/face protection (P280), Wear fire/flame resistant/retardant clothing (P283), IF SWALLOWED: call a POISON CENTER if you feel unwell. Rinse mouth (P301 + P312 + P330), IF SWALLOWED: rinse mouth. Do NOT induce vomiting (P301 + P330 + P331), IF ON SKIN (or hair): Take off immediately all contaminated clothing (P303 + P361 + P353), IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician. (P304 + P340 + P310), IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician. (P305 + P351 + P338 + P310), IF ON CLOTHING: rinse immediately contaminated clothing and skin with plenty of water before removing clothes (P306 + P360), Get medical advice/attention if you feel unwell (P314), If eye irritation persists: get medical advice/attention (P337 + P313), Wash contaminated clothing before reuse (P363), In case of fire: use dry sand, dry chemical or alcohol-resistant foam for extinction (P370 + P378), In case of major fire and large quantities: Evacuate area. Fight fire remotely due to risk of explosion (P371 + P380 + P375), Absorb spillage to prevent material damage (P390), Store in a well-ventilated place. Keep container tightly closed (P403 + P233), Store in a well-ventilated place and keep cool (P403 + P235), Store locked up (P405), Store in corrosive resistant stainless steel container with a resistant inner liner (P406), Dispose of contents/container to an approved waste disposal plant (P501).

20X Silver Probe Solution (Part No. 50843A): One 150 μ L vial.

Classification:

Oxidizing solids, Category 2 (H272)
Corrosive to metals, Category 1 (H290)
Skin corrosion, Category 1B (H314)
Serious eye damage, Category 1 (H318)
Acute aquatic toxicity, Category 1 (H400)
Chronic aquatic toxicity, Category 1 (H410)

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| Pictogram |  |
| Signal Word | Danger |
| Hazard Statements: May intensify fire; oxidizer (H272). May be corrosive to metals (H290). Causes severe skin burns and eye damage (H314). Very toxic to aquatic life with long lasting effects (H410). | |
| Precautionary Statements: Keep away from heat (P210). Keep/Store away from clothing/combustible materials (P220). Take any precaution to avoid mixing with combustibles (P221). Keep | |

only in original container (P234). Do not breathe dust or mist (P260). Wash skin thoroughly after handling (P264). Avoid release to the environment (P273). Wear protective gloves/ protective clothing/ eye protection/ face protection (P280). IF SWALLOWED: Rinse mouth. Do NOT induce vomiting (P301 + P330 + P331). IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower (P303 + P361 + P353). IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor (P304 + P340 + P310). IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor (P305 + P351 + P338 + P310). Wash contaminated clothing before reuse (P363). In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish (P370 + P378). Absorb spillage to prevent material damage (P390). Collect spillage (P391). Store locked up (P405). Store in corrosive resistant stainless steel container with a resistant inner liner (P406). Dispose of contents/ container to an approved waste disposal plant (P501).

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Polymer Matrix (Part No. 50842A): Two 1.5 mL vials

| CHEMICAL NAME | CONCENTRATION | CAS # |
|---------------|---------------|---------|
| Isopropanol | <70% | 67-63-0 |

20X Silver Probe Solution (Part No. 50843A): One 150 µL vial.

| CHEMICAL NAME | CONCENTRATION | CAS # |
|---------------------|---------------|-------|
| Proprietary Reagent | <150 mM | |

SECTION 4. FIRST-AID MEASURES

- IF SWALLOWED, WASH OUT MOUTH WITH WATER PROVIDED PERSON IS CONSCIOUS. CALL A PHYSICIAN IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN.
- IN CASE OF SKIN CONTACT, FLUSH WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES. REMOVE CONTAMINATED CLOTHING AND SHOES. CALL A PHYSICIAN.
- IN CASE OF CONTACT WITH EYES, FLUSH WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES. ASSURE ADEQUATE FLUSHING BY SEPARATING THE EYELIDS WITH FINGERS. CALL A PHYSICIAN.
- IF BREATHED IN, MOVE PERSON INTO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. CONSULT A PHYSICIAN.

SECTION 5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media: Water spray, alcohol-resistant foam, dry chemical or CO₂
- Special protective equipment: Self-contained breathing apparatus

- Special hazards arising from the substance or mixture: Container explosion may occur under fire conditions.
- Advice for firefighters Wear self-contained breathing apparatus for firefighting if necessary
- Further information Use water spray to cool unopened containers.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Evacuate area
- Wear self-contained breathing apparatus, rubber boots and heavy rubber gloves.
- Absorb with sand or vermiculite, sweep up, place in a bag and hold for waste disposal.
- Avoid raising dust.
- Ventilate area and wash spill site after material pickup is complete.
- Personal precautions, protective equipment and emergency procedures: Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8
- Environmental precautions Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.
- Methods and materials for containment and cleaning up Sweep up and shovel. Contain spillage, and then collect with an electrically protected vacuum cleaner or by wetbrushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal.

SECTION 7. SAFETY HANDLING AND STORAGE

- Should be handled by trained personnel observing good laboratory practices.
- Avoid breathing vapor.
- Avoid skin contact or swallowing.
- May cause allergic reaction in sensitized individuals.
- Store in properly labeled containers at temperature on label
- Precautions for safe handling Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs. Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition - No smoking. Keep away from heat and sources of ignition.
- Conditions for safe storage, including any incompatibilities Keep container tightly closed in a dry and well-ventilated place.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

- Engineering measures: Handle in accordance with good industrial hygiene and safety practices. Wash hands immediately after handling the product.
- Personal protective equipment: Face shield or safety glasses, gloves, protective clothing, suitable respiratory equipment in cases of inadequate ventilation.
- Skin protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this

product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. Full contact Material: Nitrile rubber Minimum layer thickness: 0.11 mm Break through time: 480 min Material tested: Dermatrill® (KCL 740 / Aldrich Z677272, Size M) Splash contact Material: Nitrile rubber Minimum layer thickness: 0.11 mm Break through time: 480 min Material tested: Dermatrill® (KCL 740 / Aldrich Z677272, Size M) data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374 If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

- Body Protection Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
- Respiratory protection Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
- Control of environmental exposure Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Form: liquid
- Odor: no data available
- pH: no data available
- Boiling point / range: no data available
- Melting point / range: no data available
- Flash point: no data available
- Evaporation rate: no data available
- Vapor pressure: no data available
- Vapor density: no data available
- Relative density: no data available
- Water solubility: no data available
- Autoignition temperature: no data available
- Decomposition temperature: no data available
- Viscosity: no data available
- Explosive properties: no data available
- Oxidizing properties: no data available

SECTION 10. STABILITY AND REACTIVITY

- Stability: no data available
- Reactivity: no data available

- Conditions to avoid: no data available
- Incompatible materials: no data available
- Decomposition products: no data available

SECTION 11. TOXICOLOGICAL INFORMATION

- Acute toxicity
 - Isopropanol: LD50 Oral: 5.045mg/kg (rat) remarks: behavioral: altered sleep time (including change in righting reflex), behavioral: somnolence (general depressed activity, LC50 Inhalation: 16000ppm 8h (rabbit), LD50 Dermal 12.800mg/kg (rabbit).
- Skin corrosion/irritation
 - Isopropanol: mild skin irritation (rabbit)
- Serious eye damage/irritation
 - Proprietary Reagent: Serious eye damage/eye irritation Eyes - Rabbit Result: Severe eye irritation
 - Isopropanol: eye irritation 24h (rabbit)
- Respiratory or skin sensitization: no data available
- Germ cell mutagenicity: no data available
- Carcinogenicity: no data available
- Reproductive toxicity: no data available

SECTION 12. ECOLOGICAL INFORMATION

- Ecotoxicity
 - Proprietary Reagent: Toxicity to fish semi-static test LC50 - Pimephales promelas (fathead minnow) - 0.0012 mg/l - 96 h Toxicity to daphnia and other aquatic invertebrates static test EC50 - Daphnia magna (Water flea) - 0.00121 mg/l - 48 h Toxicity to algae EC50 - Pseudokirchneriella subcapitata (green algae) - 0.0099 mg/l - 96 h
 - Isopropanol: Toxicity to fish: LC50 9.640,00mg/l 96h (Pimephales promelas). Toxicity to Daphnia and other aquatic invertebrates: EC50 5.102,00mg/dl 24h (Daphnia magna); Immobilization EC50: 6.851mg/l 24h (Daphnia magna). Toxicity to algae: EC50 >2.000,00 72h (Desmodesmus subspicatus); EC50 >1.000,00 24h (Algae) Sulfuric Acid: LC50 42 mg/L in 96 hrs (mosquito fish); mortality NOEC 19.5 mg/L in 96 hrs (rainbow trout); mortality LOEC 4.6 mg/L in 8 days (fathead minnow); growth inhibition LOEC 2.68 mg/L in 6 days (algae)
- Mobility: no data available
- Biodegradation: no data available
- Bioaccumulation
 - Proprietary Reagent: Bioaccumulation Cyprinus carpio (Carp) - 41 d Bioconcentration factor (BCF): 70

SECTION 13. DISPOSAL CONSIDERATIONS

For small quantities: Cautiously add to a large stirred excess of water. Adjust the pH to neutral. Flush the aqueous solutions down the drain with plenty of water.

SECTION 14. TRANSPORT INFORMATION - IATA

- Hazard Class: 3
- Subsidiary Class: none
- Packing Group: II
- UN-No: UN1219

NOTE: THIS PRODUCT IS SHIPPED AS "DANGEROUS GOODS IN EXCEPTED QUANTITIES" UNDER IATA REGULATION 2.6.2.2.

SECTION 15. REGULATORY INFORMATION

- Safety, health and environmental regulations/legislation specific for the substance or mixture:
no data available
- Chemical safety assessment: no data available

SECTION 16. OTHER INFORMATION

The above information is believed to be correct but does not purport to be all inclusive and should be used only as a guide for experienced personnel. Cell Biolabs, Inc. shall not be held liable for any damage resulting from the handling or from contact with the above product(s).

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