

Material Safety Data Sheet: ETC Accelerator (Component #2 of the XF Cell Mito Stress Test Kit)

Section I – Chemical Product Identification

Synonyms: FCCP, FCCP [carbonyl cyanide 4-(Trifluoromethoxy) Phenylhydrazone]
Molecular formula: C₁₀H₅F₃N₄O
Molecular weight: 254.17

Section II – Composition/Information On Ingredients

Hazardous ingredients: FCCP
CAS number: 370-86-5
EINECS: 206-730-8
Weight: N/A
OSHA PEL: not established

Section III – Hazardous Identification

Warning! Harmful by ingestion.
Physical appearance: dark yellow powder
Odor: none detected
Effects of overexposure:
General: FCCP has shown toxic symptoms in humans. The most common are nausea, skin rashes.
Inhalation: may be harmful if inhaled. May cause respiratory tract irritation.
Eyes: may cause eye irritation.
Skin: may be harmful if absorbed through skin. May cause skin irritation.
Ingestion: a high ingestion hazard.
HMIS & NFPA hazard ratings: health–1, flammability–0, chemical reactivity–0.

Section IV – First Aid Measures

Never give fluids or induce vomiting if patient is unconscious or is having convulsions.
General advice: remove contaminated clothing promptly (launder before reuse)
Eye contact: flush thoroughly with running water (including under eyelids) for at least 15 minutes. If irritation persists after flushing, seek medical attention.
Skin contact: wash contaminated skin with water. Seek medical attention if irritation persists.
Ingestion: seek immediate medical care. Do not induce vomiting.
Inhalation: remove to fresh air. If breathing has stopped, provide artificial respiration, keep the victim warm & seek medical attention.
Special advice: chemical should be treated with care, respect & common sense.

Section V – Fire Fighting Measures

Extinguishing media: Foam, carbon dioxide, dry powder & water spray.
Special protective equipment for fire-fighters: wear a self-contained breathing apparatus (SCBA).
Special exposure hazards: wear rubber gloves, SCBA, & rubber suit.
Flashpoint & method: n/a
LEL: 3.0 – n/a
UEL: 42 – n/a
Auto ignition temperature: n/a

Section VI –Accidental Release Measures

Personal precautions: avoid formation of dust; use a respirator or self-contained breathing apparatus (SCBA).
Environmental precautions: do not let enter drains. Contact environmental supervisor. Ventilate the area. Do not breathe the dust or aerosol.
Spill clean-up methods: dilute & flush to wastewater treatment or absorb with inert material. Do not allow the material to enter streams or waterways.
Recommended decontamination facilities: eye, bath, water washing facilities.

Section VII – Handling & Storage

Usage/handling precautions: avoid formation of dust & aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventative fire protection. Avoid contact with skin, eyes, or clothing.
Storage precautions: keep container tightly closed, in a well ventilated place.

Section VIII – Exposure Controls/Personal Protection

Exposure limits:
ACGIH threshold limit value (TLV): not established
OSHA (USA) permissible exposure limit (PEL, 1989 table z-1-a values or section specific standards): not established
AIHA workplace environmental exposure level “weel” guideline for airborne concentrations in the workplace: 250 ppm (8-hr TWA)
Ventilation: good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. Use process enclosures, local exhaust ventilation, or other engineering controls to maintain ventilation.
Respiratory protection: in case of dust or aerosol formation use a respirator or SCBA.
Respirator type: hygroscopic powder. If respirators are used, a program should be instituted to assure compliance with OSHA standards.
Hand protection: butyl rubber or nitrile (NBR) rubber gloves.
Eye protection: tightly fitting safety goggles.

Section IX – Physical & Chemical Properties

Appearance: dark yellow powder

Odor: essentially odorless

Odor threshold: n/a

pH: n/a

Boiling point: n/a

Flashpoint & method: n/a

Sensitivity to static discharge: material may accumulate a static charge.

Section X – Stability & Reactivity

Stability: Stable.

Conditions to avoid: prolonged heating above 150°C (302°F) can cause rapid, exothermic decomposition

Materials to avoid: strong oxidizing agents.

Hazardous decomposition products: carbon oxides

Section XI – Toxicological Information

Acute toxicity data:

Oral Id-50 (male rat): 1.500mg/kg

Inhalation (rat): n/a.

Dermal Id-50 (rat): n/a

Skin irritation (human): mild

Repeated skin application (human): slight irritation

Skin sensitization (human): n/a

Eye irritation (human): n/a

Developmental toxicity data: may be fatal if enters into blood stream

Section XII – Ecological Information

Elimination information (persistence & degradability): no data available.

Ecotoxicity effects: no data available.

Further information on ecology: no data available.

Section XIII – Disposal Considerations

Disposal methods: waste disposal. Dilute & flush to an approved wastewater treatment system.

Section XIV – Transportation Information

Dot USA status: not dangerous good

Section XV – Regulatory Information

OSHA hazards: harmful by ingestion.

DSL status: this product contains the following components that are not on the Canadian DSL nor the NDSL lists: FCCP CAS #370-86-5

Sara 302 components: no chemicals in this material are subject to the reporting requirements of SARA title iii, section 302.

Sara 313: this material does not contain any chemical components with known cas numbers that exceed the Threshold (de minimis) reporting levels established by SARA title iii, section 313.

Sara 311/312 hazards: acute health hazard.

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