



## Material Safety Data Sheet

### Complete™ Protease Inhibitor Cocktail Tablet: *sc-29130*

#### CHEMICAL IDENTIFICATION

**Description:** Protease Inhibitor Cocktail Tablets, mixture of several protease inhibitors with broad inhibitory specificity. For the inhibition of serine, cysteine, and metalloproteases in bacterial, mammalian, yeast, and plant cell extracts.

**Suggested Starting Concentration:** 1 tablet contains protease inhibitors sufficient for 50 ml cell extract. If very high proteolytic activity is present, one tablet should be used for 25 ml extraction buffer. The tablets can be added directly to the extraction medium.

**Stock Solution:** Dissolve one tablet Complete in 2 ml redist. H<sub>2</sub>O or in 100 mM phosphate buffer, pH 7.0.

**Note:** This product contains EDTA (18.5 mg/tablet yield 1 mM solution of EDTA in 50 ml). Therefore, the extraction buffer should not contain divalent cations like Ca<sup>2+</sup>, Mg<sup>2+</sup> or Mn<sup>2+</sup>; otherwise the inhibition of the metalloproteases might be incomplete. If the protein of interest will be purified by IMAC (immobilized metal- chelate affinity chromatography), e.g. Poly-His tagged recombinant proteins, EDTA has to be eliminated (e.g. by dialysis) prior to the chromatography. Additionally, the cocktail contains both reversible and irreversible protease inhibitors. Therefore, we recommend the addition of cocktail to all stock buffers and solutions normally protected with protease inhibitors and not only during the initial purification steps. The protease inhibitors present in tablets do not form irreversible complexes with SH groups of proteins.

#### COMPOSITION/INFORMATION ON INGREDIENTS

**CAS #:** Ethylenediaminetetraacetic Acid, Disodium Salt: 139-33-3. No other hazardous components >1%, >0.1% carcinogens.

**Solubility:** Soluble in water

**Storage:** Store tablets at 4°C.

**pH:** recommended pH for stock solution: 7.0

#### HAZARDS IDENTIFICATION

**Primary Routes of Entry:** Ingestion, eye and/or skin contact.

**Health Effects:** Adverse health effects are not expected from the recommended use of this product.

#### FIRST-AID MEASURES

**Inhalation:** If breathing becomes difficult, remove victim to fresh air. Seek medical assistance immediately.

**Ingestion:** No adverse effects are reasonably anticipated, however, get medical attention if there is ingestion of this product.

**Skin Contact:** Avoid skin contact. If skin contact leads to irritation or reddening of skin, get medical attention.

**Eye Contact:** Flush eye(s) with large volumes of water for at least 15 minutes.

#### FIRE EXTINGUISHING MEASURES

**Extinguishing Media:** Use fire extinguishing media appropriate for site conditions.

**Special Fire Procedures:** Structural firefighting gear and self-contained breathing apparatus will provide adequate protection if this product is in a fire area.

#### ACCIDENTAL RELEASE MEASURES

**Steps to be Taken in Case Material is Released or Spilled:** Wear appropriate personal protective clothing as specified in Exposure Controls Section. Pick up material dry. Place all contaminated disposables into a suitable container, seal, label, and hold for disposal.

#### HANDLING AND STORAGE

Observe all federal, state and local regulations when storing this substance. Store away from incompatible substances. Store tablets at 4 degrees C; keep container tightly closed when not in use.

#### EXPOSURE CONTROLS/PERSONAL PROTECTION

**Ventilation Data:** Supplemental ventilation is not required for the use of this product.

**Respiratory Protection:** Respiratory protection is not required under normal use of this product.

**Protective Gloves:** Wear appropriate protective gloves to prevent skin contact.

**Other Protective Equipment:** Wear appropriate eye protection to prevent eye contact. Wear appropriate body protection to prevent skin contact.

**Other Engineering Controls:** N/A

**Work Practices:** Good laboratory technique should be used when handling this product. Observe appropriate chemical hygiene. Avoid contact with skin or eyes. Do not place in mouth.

**Hygienic Practices:** Do not eat, drink, or smoke while working with product. Upon completion of work activities involving this product, wash hands thoroughly with soap and water.

#### PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:** Tablets.

**Melting point:** N/A

**Boiling point:** N/A

#### STABILITY AND REACTIVITY

**Is the Product Stable?** Yes, under normal handling and storage conditions.



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### TOXICOLOGICAL INFORMATION

RTECS#: AH4375000

**Toxicity Data:** Ethylenediaminetetraacetic Acid, Disodium Salt:  
LD50(rat,oral)=2g/kg; LD50(mouse,oral)=2050mg/kg;

**Reproductive Effects:** We have been unable to locate studies on possible human developmental toxicity of EDTA or its salts. Three cases of EDTA therapy in pregnant women are known to us; all featured third trimester use of an EDTA salt and all resulted in normal babies (1-3).

#### References:

1 Abendroth, V.K. 1971. Ausgezeichnete Wirksamkeit der Natriumziträt. EDTA-Kombinationstherapie bei schwerer Bleivergiftung in der Schwangerschaft. Dtsch Ges Wissen 26: 2130-2131.

2 Timpo, A.E., *et al.* 1979. Congenital lead intoxication. J. Pediatr. 94: 765-767.

3 Angle, C.R. and McIntire, M.S. 1964. Lead poisoning during pregnancy. Am. J. Dis. Child 108: 436-439.

### ECOLOGICAL INFORMATION

Data not yet available.

### DISPOSAL CONSIDERATIONS

Observe all federal, state and local environmental regulations.

### TRANSPORT INFORMATION

No classification currently assigned.

### REGULATORY INFORMATION

Status in USA: EDTA CAS#: 139-33-3

EPA GENETOX PROGRAM 1988, Negative: Histidine reversion-Ames test

EPA TSCA Section 8(b) CHEMICAL INVENTORY

### OTHER INFORMATION

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. Santa Cruz Biotechnology shall not be held liable for any damage resulting from handling or from contact with the product.

### TRADEMARKS

COMPLETE is a trademark of Roche Diagnostics.