

# MATERIAL SAFETY DATA SHEET

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## **SECTION I - PRODUCT IDENTIFICATION**

**PRODUCT NAME:** YC-Reduced Iso  
**CHEMICAL NAME:** Aqueous solution of the potassium salts of dihydroiso-alpha-acids.  
**CHEMICAL FAMILY:** Hop Extracts / Hop Acid Concentrate  
**SYNONYM:** Aqueous solution of potassium dihydroisohumulate.

## **SECTION II - MATERIAL or COMPONENTS**

**COMPOSITION:** An aqueous solution (pH 8.5-11.5) of the potassium salts of the dihydroiso-alpha-acids produced by isomerising and hydrogenating the alpha-acids from CO2 hop extract.

**HAZARDOUS COMPONENTS:** Concentration of the dihydroiso-alpha-acids is 35% w/v.  
Not Applicable  
An aqueous solution of a single component.

## **SECTION III - PHYSICAL DATA**

**BOILING POINT:** ~ 100°C  
**FREEZING POINT:** < 0°C  
**VAPOUR PRESSURE:** Unknown  
**VAPOUR DENSITY:** Unknown  
**SOLUBILITY IN WATER:** Complete in DI water at pH 9.0  
**APPEARANCE & ODOUR:** Mobile pale yellow to amber-brown liquid with slight resinous odor.  
**SPECIFIC GRAVITY AT 30% :** 1.08 +/- 0.01  
**PERCENT VOLATILE by VOLUME:** < 1  
**EVAPORATION RATE:** < 1

## **SECTION IV - FIRE & EXPLOSION**

**FLASH POINT:** Not Applicable  
**EXTINGUISHING MEDIA:** Not Applicable  
**SPECIAL FIRE FIGHTING PROCEDURES:** None  
**UNUSUAL FIRE & EXPLOSION HAZARDS:** None

## **SECTION V - HEALTH HAZARD DATA**

**THRESHOLD LIMIT VALUE:** Not Established  
**ORAL INGESTION:** Not applicable – Food additive, very bitter therefore unpalatable.  
**EYE CONTACT:** May be a mild irritant.  
**SKIN CONTACT:** Prolonged contact could cause dermatitis in some individuals.  
**INHALATION:** Not Volatile; not considered a primary route of contact.  
**NOTE:** Substance is a modified hop extract which may be safely used in beer in accordance with FDA Food Additive Regulation 21 CFR 172.560(b-6)

### **EMERGENCY FIRST AID:**

**ORAL INGESTION:** Not Applicable  
**EYE CONTACT:** Wash with copious amounts of water.  
**SKIN CONTACT:** Wash with warm, soapy water.  
**INHALATION:** Not Applicable

## **SECTION VI - SPILL or LEAK PROCEDURE**

Steps to be taken in case material is released or spilled: Apply commercial absorbents to spill and after removal, flush with water.

## **SECTION VII - SPECIAL PROTECTION**

**PROTECTIVE GLOVES:** Rubber  
**EYE PROTECTION:** Safety Glasses