

13(S)-HODE: sc-205005

MATERIAL SAFETY DATA SHEET

SECTION 1 - PRODUCT AND COMPANY INFORMATION

Product Name: 13(S)-HODE

Catalog Number: sc-205005

Supplier: Santa Cruz Biotechnology, Inc.
2145 Delaware Ave.
Santa Cruz, California 95060
800.457.3801 or 831.457.3800

Emergency: ChemWatch
Within the US & Canada: 877-715-9305
Outside the US & Canada: +800 2436 2255
(1-800-CHEMCALL) or call +613 9573 3112

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENT

<u>Substance Name</u>	<u>CAS #</u>	<u>SARA 313</u>
13(S)-Hydroxyoctadeca-9z,11e-dienoic acid	29623-28-7	No

<u>Ingredient Name</u>	<u>CAS #</u>	<u>%</u>	<u>SARA 313</u>
Ethyl alcohol, non-denatured, 200 proof	64-17-5	99.9	No

Synonyms 13(S)-HYDROXYOCTADEC-9Z,11E-DIENOIC ACID

Formula: $C_{18}H_{32}O_3$

Molecular Weight: 296.44

SECTION 3 - HAZARDS IDENTIFICATION**EMERGENCY OVERVIEW**

FLAMMABLE (USA) HIGHLY FLAMMABLE (EU). IRRITANT. IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN.

TARGET ORGAN(S): LIVER. NERVES.

HMIS RATING

HEALTH: 2*

FLAMMABILITY: 3

REACTIVITY: 0

NFPA RATING

HEALTH: 2

FLAMMABILITY: 3

REACTIVITY: 0

*ADDITIONAL CHRONIC HAZARDS PRESENT.

FOR ADDITIONAL INFORMATION ON TOXICITY, PLEASE REFER TO SECTION 11.

SECTION 4 - FIRST AID MEASURES**ORAL EXPOSURE**

IF SWALLOWED, WASH OUT MOUTH WITH WATER PROVIDED PERSON IS CONSCIOUS. CALL A PHYSICIAN.

INHALATION EXPOSURE

IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN.

DERMAL EXPOSURE

IN CASE OF CONTACT, IMMEDIATELY WASH SKIN WITH SOAP AND COPIOUS AMOUNTS OF WATER.

EYE EXPOSURE

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.

SECTION 5 - FIRE FIGHTING MEASURES

FLAMMABLE HAZARDS: YES

FLASH POINT: 57 °F 14 °C

EXPLOSION LIMITS

LOWER: 3.3 %

UPPER: 19 %

AUTOIGNITION TEMP: 363 °C

FLAMMABILITY: N/A

EXTINGUISHING MEDIA

SUITABLE: CARBON DIOXIDE, DRY CHEMICAL POWDER, OR APPROPRIATE FOAM.

FIRE FIGHTING

PROTECTIVE EQUIPMENT: WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING TO PREVENT CONTACT WITH SKIN AND EYES.

SPECIFIC HAZARD(S): FLAMMABLE LIQUID. VAPOR MAY TRAVEL CONSIDERABLE DISTANCE TO SOURCE OF IGNITION AND FLASH BACK.

SPECIFIC METHOD(S) OF FIRE FIGHTING: USE WATER SPRAY TO COOL FIRE-EXPOSED CONTAINERS.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

PROCEDURE TO BE FOLLOWED IN CASE OF LEAK OR SPILL

EVACUATE AREA. SHUT OFF ALL SOURCES OF IGNITION.

PROCEDURE(S) OF PERSONAL PRECAUTION(S)

WEAR SELF-CONTAINED BREATHING APPARATUS, RUBBER BOOTS, AND HEAVY RUBBER GLOVES.

METHODS FOR CLEANING UP

COVER WITH DRY-LIME, SAND, OR SODA ASH. PLACE IN COVERED CONTAINERS USING NON-SPARKING TOOLS AND TRANSPORT OUTDOORS. VENTILATE AREA AND WASH SPILL SITE AFTER MATERIAL PICKUP IS COMPLETE.

SECTION 7 - HANDLING AND STORAGE**HANDLING**

USER EXPOSURE: DO NOT BREATHE VAPOR. DO NOT GET IN EYES, ON SKIN, ON CLOTHING. AVOID PROLONGED OR REPEATED EXPOSURE.

STORAGE

SUITABLE: KEEP TIGHTLY CLOSED. KEEP AWAY FROM HEAT, SPARKS, AND OPEN FLAME. STORE AT -20°C.

SECTION 8 - EXPOSURE CONTROLS / PPE**ENGINEERING CONTROLS**

USE ONLY IN A CHEMICAL FUME HOOD. SAFETY SHOWER AND EYE BATH.

PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY: USE RESPIRATORS AND COMPONENTS TESTED AND APPROVED UNDER APPROPRIATE GOVERNMENT STANDARDS SUCH AS NIOSH (US) OR CEN (EU). WHERE RISK ASSESSMENT SHOWS AIR-PURIFYING RESPIRATORS ARE APPROPRIATE USE A FULL-FACE RESPIRATOR WITH MULTI-PURPOSE COMBINATION (US) OR TYPE ABEK (EN 14387) RESPIRATOR CARTRIDGES AS A BACKUP TO ENGINEERING CONTROLS. IF THE RESPIRATOR IS THE SOLE MEANS OF PROTECTION, USE A FULL-FACE SUPPLIED AIR RESPIRATOR.

HAND: COMPATIBLE CHEMICAL-RESISTANT GLOVES.

continued...

EYE: CHEMICAL SAFETY GOGGLES.
SKIN-SPECIFIC: CHEMICAL RESISTANT APRON.

GENERAL HYGIENE MEASURES
WASH THOROUGHLY AFTER HANDLING.

EXPOSURE LIMITS
COUNTRY SOURCE TYPE VALUE
POLAND NDS 1900 MG/M3
POLAND NDSCH -
POLAND NDSP -

SECTION 9 - PHYSICAL/CHEMICAL PROPERTIES

APPEARANCE LIQUID
PH N/A
BP/BP RANGE 78.0 - 80.0 °C
MP/MP RANGE -144.0 °C
FREEZING POINT N/A
VAPOR PRESSURE 44.6 MMHG 20 °C
VAPOR DENSITY N/A
SATURATED VAPOR CONC. N/A
BULK DENSITY N/A
ODOR THRESHOLD N/A
VOLATILE% N/A
VOC CONTENT N/A
WATER CONTENT N/A
SOLVENT CONTENT N/A
EVAPORATION RATE N/A
VISCOSITY N/A
SURFACE TENSION N/A
PARTITION COEFFICIENT N/A
DECOMPOSITION TEMP. N/A
FLASH POINT 57 °F 14 °C
EXPLOSION LIMITS LOWER 3.3 %
UPPER 19 %
FLAMMABILITY N/A
AUTOIGNITION TEMP 363 °C
REFRACTIVE INDEX N/A
OPTICAL ROTATION N/A
MISCELLANEOUS DATA N/A
SOLUBILITY N/A
N/A = NOT AVAILABLE

SECTION 10 - STABILITY AND REACTIVITY

STABILITY
STABLE: STABLE.

CONDITIONS TO AVOID: MOISTURE.

MATERIALS TO AVOID: ACIDS, ACID CHLORIDES, ACID ANHYDRIDES, ALKALI
METALS, AMMONIA, OXIDIZING AGENTS, PEROXIDES.

HAZARDOUS DECOMPOSITION PRODUCTS
HAZARDOUS DECOMPOSITION PRODUCTS: CARBON MONOXIDE, CARBON DIOXIDE.

HAZARDOUS POLYMERIZATION
HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

SECTION 11 - TOXICOLOGICAL INFORMATION

ROUTE OF EXPOSURE
SKIN CONTACT: MAY CAUSE SKIN IRRITATION.

SKIN ABSORPTION: MAY BE HARMFUL IF ABSORBED THROUGH THE SKIN.

EYE CONTACT: MAY CAUSE EYE IRRITATION.

INHALATION: MATERIAL MAY BE IRRITATING TO MUCOUS MEMBRANES AND
UPPER RESPIRATORY TRACT. MAY BE HARMFUL IF INHALED.

INGESTION: MAY BE HARMFUL IF SWALLOWED.

TARGET ORGAN(S) OR SYSTEM(S)
NERVES. LIVER. HEART.

SIGNS AND SYMPTOMS OF EXPOSURE
CAN CAUSE CNS DEPRESSION. EXPOSURE CAN CAUSE: NARCOTIC EFFECT.
NAUSEA, HEADACHE, AND VOMITING. DAMAGE TO THE HEART. TO THE BEST
OF OUR KNOWLEDGE, THE CHEMICAL, PHYSICAL, AND TOXICOLOGICAL
PROPERTIES HAVE NOT BEEN THOROUGHLY INVESTIGATED.
CHRONIC EXPOSURE - CARCINOGEN

RESULT: THIS PRODUCT IS OR CONTAINS A COMPONENT THAT IS NOT
CLASSIFIABLE AS TO ITS CARCINOGENICITY BASED ON ITS IARC, ACGIH,
NTP, OR EPA CLASSIFICATION.

SECTION 12 - ECOLOGICAL INFORMATION

NO DATA AVAILABLE.

SECTION 13 - DISPOSAL CONSIDERATIONS

APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION
CONTACT A LICENSED PROFESSIONAL WASTE DISPOSAL SERVICE TO DISPOSE
OF THIS MATERIAL. BURN IN A CHEMICAL INCINERATOR EQUIPPED WITH AN
AFTERBURNER AND SCRUBBER BUT EXERT EXTRA CARE IN IGNITING AS THIS
MATERIAL IS HIGHLY FLAMMABLE. OBSERVE ALL FEDERAL, STATE, AND
LOCAL ENVIRONMENTAL REGULATIONS.

SECTION 14 - TRANSPORT INFORMATION

DOT
PROPER SHIPPING NAME: ETHANOL [OR] ETHYL ALCOHOL [OR]
ETHANOL SOLUTIONS [OR] ETHYL ALCOHOL SOLUTIONS
UN#: 1170
CLASS: 3
PACKING GROUP: PACKING GROUP II
HAZARD LABEL: FLAMMABLE LIQUID
PIH: NOT PIH

IATA
PROPER SHIPPING NAME: ETHANOL
IATA UN NUMBER: 1170
HAZARD CLASS: 3
PACKING GROUP: II

SECTION 15 - REGULATORY INFORMATION

EU ADDITIONAL CLASSIFICATION
SYMBOL OF DANGER: F
INDICATION OF DANGER: HIGHLY FLAMMABLE.
R: 11
RISK STATEMENTS: HIGHLY FLAMMABLE.

US CLASSIFICATION AND LABEL TEXT
INDICATION OF DANGER: FLAMMABLE (USA) HIGHLY FLAMMABLE (EU).
IRRITANT.
RISK STATEMENTS: IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN.
SAFETY STATEMENTS: IN CASE OF CONTACT WITH EYES, RINSE
IMMEDIATELY WITH PLENTY OF WATER AND SEEK MEDICAL ADVICE.
US STATEMENTS: TARGET ORGAN(S): LIVER. NERVES.
UNITED STATES REGULATORY INFORMATION
SARA LISTED: NO

CANADA REGULATORY INFORMATION
WHMIS CLASSIFICATION: THIS PRODUCT HAS BEEN CLASSIFIED IN
ACCORDANCE WITH THE HAZARD CRITERIA OF THE CPR, AND THE MSDS
CONTAINS ALL THE INFORMATION REQUIRED BY THE CPR.
DSL: YES
NDSL: NO

SECTION 16 - OTHER INFORMATION

The above information is believed to be correct but does not purport to be complete and should be used only as a guide. The burden of safe use of this material rests entirely with the user.

1/2/2012