SAFETY DATA SHEET

Eastman(TM) 2-Ethylhexanol

Version 2.3  Revision Date: 11/28/2019  SDS Number: 150000000124  Date of last issue: 03/24/2017
PRD  SDSUS / Z8 / 0001  Date of first issue: 09/06/2016

SECTION 1. IDENTIFICATION

Product name : Eastman(TM) 2-Ethylhexanol

Product code : 00175-00, P0017500, P0017501, P0017503, P0017505, P001750A, P001750B, E00175E1, E00175E2, E00175E3, E0017504, P0017506, P0017508

Manufacturer or supplier's details
Company name of supplier : Eastman Chemical Company
Address : 200 South Wilcox Drive
          Kingsport TN 37660-5280
Telephone : (423) 229-2000
Emergency telephone : CHEMTREC: +1-800-424-9300, +1-703-527-3887 CCN7321

Recommended use of the chemical and restrictions on use
Recommended use : Solvent
Restrictions on use : None known.

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with 29 CFR 1910.1200
Flammable liquids : Category 4
Acute toxicity (Inhalation) : Category 4
Skin irritation : Category 2
Eye irritation : Category 2A
Specific target organ toxicity - single exposure (Inhalation) : Category 3 (Respiratory system)

GHS label elements
Hazard pictograms :

Signal Word : Warning
Hazard Statements : H227 Combustible liquid.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.

Precautionary Statements:

Prevention:
P210 Keep away from heat/sparks/open flames/hot surfaces.
No smoking.
P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
P264 Wash skin thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/ eye protection/ face protection.

Response:
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332 + P313 If skin irritation occurs: Get medical advice/ attention.
P337 + P313 If eye irritation persists: Get medical advice/ attention.
P362 Take off contaminated clothing and wash before reuse.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Storage:
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P403 + P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.

Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards
None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Substance / Mixture</th>
<th>Substance name</th>
<th>CAS-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Substance</td>
<td>2-EH</td>
<td>104-76-7</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Components</th>
<th>Chemical name</th>
<th>CAS-No.</th>
<th>Concentration (% w/w)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-ethylhexanol</td>
<td>104-76-7</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>
SECTION 4. FIRST AID MEASURES

If inhaled : Move to fresh air. 
            Treat symptomatically. 
            If symptoms persist, call a physician.

In case of skin contact : Wash off immediately with soap and plenty of water while 
                        removing all contaminated clothes and shoes. 
                        Wash contaminated clothing before re-use. 
                        Get medical attention. 
                        Thoroughly clean shoes before re-use.

In case of eye contact : Remove contact lenses, if present and easy to do. Continue 
                        rinsing. 
                        If eye irritation persists: Get medical advice/attention.

If swallowed : Seek medical advice.

Most important symptoms and effects, both acute and delayed: 
          Causes skin irritation. 
          Causes serious eye irritation. 
          Harmful if inhaled. 
          May cause respiratory irritation.

Notes to physician : Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Carbon dioxide (CO2) 
                                Dry chemical 
                                Water spray

Specific hazards during fire fighting : Water may be ineffective. 
                                      The product will float on water and can be reignited on surface water.

Hazardous combustion products : No hazardous combustion products are known

Further information : Use water spray to cool unopened containers.

Special protective equipment for fire-fighters : In the event of fire, wear self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Use personal protective equipment. 
                                                                      Local authorities should be advised if significant spillages cannot be contained.
Environmental precautions: Avoid release to the environment.

Methods and materials for containment and cleaning up:
Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).
After cleaning, flush away traces with water.
Eliminate all ignition sources if safe to do so.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion: None known.

Advice on safe handling:
- Avoid inhalation of vapor or mist.
- Avoid contact with skin, eyes and clothing.
- Do not swallow.
- Ensure adequate ventilation.
- Wash thoroughly after handling.
- Keep away from fire (No Smoking).
- Keep away from fire, sparks and heated surfaces.

Conditions for safe storage:
- Keep container closed when not in use.
- Store locked up.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters:
Contains no substances with occupational exposure limit values.

Engineering measures:
- Ensure adequate ventilation.

Personal protective equipment:
Respiratory protection:
- Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines.

Hand protection

Remarks:
- Wear suitable gloves.

Eye protection:
- Wear safety glasses with side shields (or goggles).
- Face-shield
- Always wear eye protection when the potential for inadvertent eye contact with the product cannot be excluded.

Protective measures:
- Remove respiratory and skin/eye protection only after vapors have been cleared from the area.
Ensure that eye flushing systems and safety showers are located close to the working place. Use personal protective equipment as required.

Hygiene measures: Handle in accordance with good industrial hygiene and safety practice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: liquid

Color: colorless

Odor: musty

Odor Threshold: 0.07 ppm

pH: not determined

Melting point/freezing point: -105 - -94 °F / -76 - -70 °C

Boiling point/boiling range: 363 °F / 184 °C

Flash point: 163.9 °F / 73.3 °C

Method: closed cup

Evaporation rate: not determined

Flammability (solid, gas): Not applicable

Vapor pressure: not determined

Relative vapor density: not determined

Relative density: 0.833 (68 °F / 20 °C)

Solubility(ies)

Water solubility: 0.1 g/l

Partition coefficient: n-octanol/water

Pow: 1,260
log Pow: 3.1

Autoignition temperature: not determined

Decomposition temperature: Method: DSC
No exotherm to 500°C
SECTION 10. STABILITY AND REACTIVITY

Chemical stability: Stable under normal conditions.
Possibility of hazardous reactions: Hazardous decomposition products formed under fire conditions.
Conditions to avoid: Heat, flames and sparks.
Incompatible materials: Oxidizing agents
Hazardous decomposition products: Carbon dioxide (CO2)
Carbon monoxide

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity
Harmful if inhaled.

Product:
Acute oral toxicity
LD50 Oral (Rat): 3,290 mg/kg
Assessment: Not classified
Remarks: May be harmful if swallowed.

Acute inhalation toxicity
LC50 (Rat): 1.2 mg/l
Exposure time: 6 h
Assessment: Harmful if inhaled.
Remarks: Harmful if inhaled.

Acute dermal toxicity
LD50 Dermal (Rat): > 3,000 mg/kg
Assessment: Not classified
Remarks: No significant adverse effects were reported
Components:
2-ethylhexanol:

Acute oral toxicity: LD50 Oral (Rat): 3,290 mg/kg

Acute inhalation toxicity: LC50 (Rat): 1.2 mg/l
Exposure time: 6 h

Acute dermal toxicity: LD50 Dermal (Rat): > 3,000 mg/kg

Skin corrosion/irritation
Causes skin irritation.

Product:
Species: Rabbit
Exposure time: 24 h
Result: slight
Remarks: Causes skin irritation.

Components:
2-ethylhexanol:

Species: Rabbit
Exposure time: 24 h
Result: slight

Serious eye damage/eye irritation
Causes serious eye irritation.

Product:
Species: Rabbit
Result: slight
Remarks: Causes eye irritation.

Components:
2-ethylhexanol:

Species: Rabbit
Result: slight

Respiratory or skin sensitization

Skin sensitization
Not classified based on available information.

Respiratory sensitization
Not classified based on available information.

Product:
Test Type: Skin Sensitization
Result: Does not cause skin sensitization.
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Germ cell mutagenicity
Not classified based on available information.

Product:
Genotoxicity in vitro
Test Type: Mutagenicity
Remarks: Not classified as hazardous.
Genotoxicity in vivo
Test Type: Mutagenicity
Result: Based on available data, the classification criteria are not met.

Carcinogenicity
Not classified based on available information.
IARC
No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
OSHA
No component of this product present at levels greater than or equal to 0.1% is on OSHA’s list of regulated carcinogens.
NTP
No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity
Not classified based on available information.

Product:
Effects on fertility
Remarks: No data available

STOT-single exposure
May cause respiratory irritation.

Product:
Routes of exposure: Inhalation
Target Organs: Respiratory system
Assessment: Irritating to respiratory system.

Components:
2-ethylhexanol:
Routes of exposure: Inhalation
Target Organs: respiratory tract irritation

STOT-repeated exposure
Not classified based on available information.

Product:
Remarks: No data available

Aspiration toxicity
Not classified based on available information.
Product:
No aspiration toxicity classification

Information on likely routes of exposure

Product:
Inhalation: Remarks: Harmful if inhaled. May cause respiratory irritation.
Skin contact: Remarks: Causes skin irritation.
Eye contact: Remarks: Causes serious eye irritation.
Ingestion: Remarks: None known.

Further information
Product:
Remarks: None known.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:
Toxicity to fish: LC50 (Pimephales promelas (fathead minnow)): 28.2 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates: EC50 (Daphnia magna (Water flea)): 39 mg/l Exposure time: 48 h
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity): NOEC (Daphnia magna (Water flea)): 7.5 µg/l Exposure time: 21 d Remarks: Read-across from a similar material

Components:
2-ethylhexanol:
Toxicity to fish: LC50 (Pimephales promelas (fathead minnow)): 28.2 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates: EC50 (daphnid): 39 mg/l Exposure time: 48 h

Persistence and degradability

Product:
Biodegradability: Result: Readily biodegradable
Biodegradation: 100 % Exposure time: 14 d
Biochemical Oxygen De-: 767 mg/g
mand (BOD) : Incubation time: 5 d
: 2,180 mg/g
Incubation time: 20 d

Chemical Oxygen Demand (COD)
Remarks: No data available

ThOD : 2,950 mg/g

**Components:**

2-ethylhexanol:

Biodegradability

: Result: Readily biodegradable
Biodegradation: 100 %
Exposure time: 14 d

Biochemical Oxygen Demand (BOD)

: 767 mg/g
Incubation time: 5 d

: 2,180 mg/g
Incubation time: 20 d

ThOD : 2,950 mg/g

**Bioaccumulative potential**

No data available

**Mobility in soil**

No data available

**Other adverse effects**

No data available

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**SECTION 13. DISPOSAL CONSIDERATIONS**

**Disposal methods**

Waste from residues: The generation of waste should be avoided or minimized wherever possible.
Dispose of in accordance with local regulations.

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**SECTION 14. TRANSPORT INFORMATION**

**International Regulations**

**IMDG-Code**
Not regulated as a dangerous good

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**
Not applicable for product as supplied.
Domestic regulation

49 CFR
UN/ID/NA number: NA 1993
Proper shipping name: Combustible liquid, n.o.s.
(2-Ethyl Hexanol)
Class: CBL
Packing group: III
Labels: None
ERG Code: 128
Marine pollutant: no
Remarks: combustible liquid, Packing group III for quantities of 450 liters (119 gallons) or more; not regulated for smaller quantities

Special precautions for user
The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know
CERCLA Reportable Quantity
This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity
This material does not contain any components with a section 304 EHS RQ.

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Component TPQ (lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SARA 311/312 Hazards</td>
<td>Acute Health Hazard Fire Hazard</td>
<td></td>
</tr>
<tr>
<td>SARA 313</td>
<td>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.</td>
<td></td>
</tr>
</tbody>
</table>

California Prop. 65
This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

The ingredients of this product are reported in the following inventories:

TCSI: On the inventory, or in compliance with the inventory
TSCA: All substances listed as active on the TSCA inventory
AICS: On the inventory, or in compliance with the inventory
DSL: All components of this product are on the Canadian DSL
ENCS : On the inventory, or in compliance with the inventory
ISHL : On the inventory, or in compliance with the inventory
KECI : On the inventory, or in compliance with the inventory
PICCS : On the inventory, or in compliance with the inventory
IECSC : On the inventory, or in compliance with the inventory
NZIoC : On the inventory, or in compliance with the inventory

TSCA list
No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

SECTION 16. OTHER INFORMATION

Further information

NFPA 704:

HMIS® IV:

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/'" represents the absence of a chronic hazard.

Full text of other abbreviations

AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC -
International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50% of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Revision Date : 11/28/2019

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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