SECTION 1. IDENTIFICATION

Product name : Eastman(TM) TEG-EH Plasticizer

Product code : 00226-00, P0022600, P0022603, P0022606, P0022608, P0022609, P0022611, E0022602

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 : Plasticizer
Restrictions on use : None known.

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with 29 CFR 1910.1200
Not a hazardous substance or mixture.

GHS label elements
Not a hazardous substance or mixture.

Other hazards
None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No.</th>
<th>Concentration (% w/w)</th>
</tr>
</thead>
<tbody>
<tr>
<td>triethylene glycol bis(2-ethylhexanoate)</td>
<td>94-28-0</td>
<td>100</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 with soap and water.
If symptoms persist, call a physician.
In case of eye contact: In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

If swallowed: Seek medical advice.

Most important symptoms and effects, both acute and delayed: None known.

Notes to physician: Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

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

Unsuitable extinguishing media: Do not use a solid water stream as it may scatter and spread fire.

Specific hazards during fire fighting: None known.

Further information: None known.

Special protective equipment for fire-fighters: Wear an approved positive pressure self-contained breathing apparatus in addition to standard fire fighting gear.

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).

SECTION 7. HANDLING AND STORAGE

Advice on safe handling: Wash thoroughly after handling.
Use only in area provided with appropriate exhaust ventilation.

Conditions for safe storage: Keep tightly closed.
SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

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 : Safety glasses

Protective measures : Ensure that eye flushing systems and safety showers are located close to the working place.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid

Color : colorless

Odor : odorless

Odor Threshold : not determined

pH : Not applicable

Melting point/range : -58 °F / -50 °C

Boiling point/boiling range : 705 - 718 °F / 374 - 381 °C

Evaporation rate : Not applicable

Flammability (solid, gas) : Not applicable

Upper explosion limit / Upper flammability limit : not determined

Lower explosion limit / Lower flammability limit : 0.46 % (V)

Vapor pressure : No data available

Relative vapor density : not determined

Relative density : 0.967 (68 °F / 20 °C)
Solubility(ies)

Water solubility: negligible

Partition coefficient: n-octanol/water: No data available

Autoignition temperature: 725 °F / 385 °C
    Method: ASTM E659

Decomposition temperature: Method: DTA
    No exotherm to 450°C

Viscosity

Viscosity, dynamic: 15.8 mPa.s (68 °F / 20 °C)

Viscosity, kinematic: 16.34 mm²/s (77 °F / 25 °C)

Explosive properties: No data available

Oxidizing properties: No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity: None reasonably foreseeable.

Chemical stability: Stable under normal conditions.

Possibility of hazardous reactions: Stable

Conditions to avoid: None known.

Incompatible materials: Strong oxidizing agents

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity
Not classified based on available information.

Product:

Acute oral toxicity: Remarks: No data available

Acute inhalation toxicity: Remarks: No data available

Acute dermal toxicity: Remarks: No data available

Ingredients:

triethylene glycol bis(2-ethylhexanoate):

Acute oral toxicity: LD50 Oral (Rat): > 2,000 mg/kg
    Assessment: The substance or mixture has no acute oral tox-
Acute dermal toxicity
LD50 Dermal (Rat): > 2,000 mg/kg
Assessment: The substance or mixture has no acute dermal toxicity

Skin corrosion/irritation
Not classified based on available information.

Product:
Remarks: No data available

Ingredients:
triethylene glycol bis(2-ethylhexanoate):
Species: Rabbit
Exposure time: 4 h
Result: slight

Serious eye damage/eye irritation
Not classified based on available information.

Product:
Remarks: No data available

Ingredients:
triethylene glycol bis(2-ethylhexanoate):
Species: Rabbit
Result: slight
Exposure time: 4 h

Respiratory or skin sensitization

Skin sensitization
Not classified based on available information.

Respiratory sensitization
Not classified based on available information.

Product:
Remarks: No data available

Ingredients:
triethylene glycol bis(2-ethylhexanoate):
Test Type: Skin sensitization
Species: Mouse
Result: Does not cause skin sensitization.
SAFETY DATA SHEET

Eastman(TM) TEG-EH Plasticizer

Version: 2.1
Revision Date: 12/04/2018
SDS Number: 150000001058
Date of last issue: -
SDSUS / Z8 / 0001
Date of first issue: 09/06/2016

Germ cell mutagenicity
Not classified based on available information.

Ingredients:

triethylene glycol bis(2-ethylhexanoate):
Genotoxicity in vitro:
Test Type: In vitro mammalian cell gene mutation test
Metabolic activation: with and without metabolic activation
Result: negative

Carcinogenicity
Not classified based on available information.

Product:
Remarks: This information is not available.

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
Not classified based on available information.

Product:
Remarks: No data available

STOT-repeated exposure
Not classified based on available information.

Product:
Remarks: No data available

Aspiration toxicity
Not classified based on available information.

Product:
No data available
Information on likely routes of exposure

Product:
Inhalation: Remarks: None known.
Skin contact: Remarks: None known.
Eye contact: Remarks: None known.
Ingestion: Remarks: None known.

Further information

Product:
Remarks: None known.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Ingredients:
triethylene glycol bis(2-ethylhexanoate):
Toxicity to fish: LC50 (Pimephales promelas (fathead minnow)): > 97 mg/l
Exposure time: 96 h
Remarks: (saturated concentration; limited solubility)

Toxicity to daphnia and other aquatic invertebrates: EC50 (Daphnia magna (Water flea)): > 97 mg/l
Exposure time: 48 h
Remarks: (saturated concentration; limited solubility)

Ecotoxicology Assessment
Acute aquatic toxicity: This product has no known ecotoxicological effects.

Persistence and degradability

Ingredients:
triethylene glycol bis(2-ethylhexanoate):
Biodegradability: Result: Readily biodegradable.
Biodegradation: 92 %
Exposure time: 28 d

Chemical Oxygen Demand (COD): 2,000 mg/g

Bioaccumulative potential
No data available
Mobility in soil
No data available
Other adverse effects
No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods
Waste from residues : Dispose of in accordance with local regulations.

SECTION 14. TRANSPORT INFORMATION

International Regulations

IATA-DGR
Not regulated as a dangerous good

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
Not regulated as a dangerous good

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>Ingredients</th>
<th>CAS-No.</th>
<th>Component TPQ (lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SARA 311/312 Hazards</td>
<td>No SARA Hazards</td>
<td></td>
</tr>
</tbody>
</table>

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.

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:

CH INV : On the inventory, or in compliance with the inventory

DSL : On the inventory, or in compliance with the inventory
AICS: On the inventory, or in compliance with the inventory
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
TCSI: On the inventory, or in compliance with the inventory
TSCA: 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:**

<table>
<thead>
<tr>
<th>Flammability</th>
<th>Health</th>
<th>Instability</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

Special hazard.

**HMIS® IV:**

- **HEALTH** / 1
- **FLAMMABILITY** 1
- **PHYSICAL HAZARD** 0

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 : 12/04/2018

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.