

SDSUS / EN / TSDSUS04 Version: 3.0 Revision Date: 05/16/2015

Initiator: 0001 / PRD 150000017108

SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product name: Eastman(TM) HPHP Glycol Nuggets

Product No.: EAN 021758. 21231-00, P2123100, P2123101, P2123102

Additional identification

Chemical name: 3-hydroxy-2,2-dimethylpropyl 3-hydroxy-2,2-dimethylpropanoate

CAS-No.: 1115-20-4

Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Chemical Intermediate **Uses advised against:** None known.

Details of the supplier of the safety data sheet

Manufacturer / Supplier

Eastman Chemical Company 200 South Wilcox Drive Kingsport, TN 37660-5280 US +14232292000

Visit our website at www.EASTMAN.com or email emnmsds@eastman.com

Emergency telephone number:

For emergency health, safety, and environmental information, call 1-423-229-4511 or 1-423-229-2000.

For emergency transportation information, in the United States: call CHEMTREC at 800-424-9300 or call 423-229-2000.

SECTION 2: Hazards identification

Hazard Classification:

Health Hazards

Serious Eye Damage/Eye Irritation Category 1

OSHA Specified Hazards:

Combustible dust If converted to small particles during further

processing, handling or by other means may form combustible dust concentrations in air.

Warning label items including precautionary statement:

Pictogram:



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Signal Words: DANGER!

Hazard Statement(s): H318: Causes serious eye damage.

If converted to small particles during further processing, handling or by

other means may form combustible dust concentrations in air.

Precautionary Statement:

Prevention: P280: Wear eye protection/face protection.

Response: P305+P351+P338: IF IN EYES: Rinse cautiously with water for several

minutes. Remove contact lenses, if present and easy to do. Continue

rinsing.

P310: Immediately call a POISON CENTER or doctor/physician.

Disposal: P501: Dispose of contents/container to an appropriate treatment and

disposal facility in accordance with applicable laws and regulations, and

product characteristics at time of disposal.

Hazard(s) not otherwise

classified (HNOC):

None known.

SECTION 3: Composition/information on ingredients

Substances / Mixtures

General information:

Chemical name	Concentration	Additional identification	Notes
hydroxypivalyl hydroxypivalate	100%	CAS-No.: 1115-20-4	#

^{*} All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

SECTION 4: First aid measures

Description of first aid measures

Inhalation: Treat symptomatically. Move to fresh air. Get medical attention if symptoms

occur.

Eye contact: Immediately flush with plenty of water for at least 15 minutes. If easy to do,

remove contact lenses. Call a physician or poison control center

immediately.

Skin contact: Wash with soap and water. Get medical attention if symptoms occur.

Ingestion: Seek medical advice.

[#] This substance has workplace exposure limit(s).



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Most important symptoms and

effects, both acute and

delayed:

May irritate and cause redness and pain.

Indication of any immediate medical attention and special treatment needed

Hazards: None known.

Treatment: Treat symptomatically.

SECTION 5: Firefighting measures

General Fire Hazards: Material can accumulate static charges which may cause an electrical

spark (ignition source). Use proper bonding and/or grounding procedures.

Extinguishing media

Suitable extinguishing

media:

Water spray. Dry chemical. Carbon Dioxide.

Unsuitable extinguishing

media:

None known.

Special hazards arising from

the substance or mixture:

Powdered material may form explosive dust-air mixtures.

Advice for firefighters

Special fire fighting

procedures:

Minimize dust generation and accumulation.

Special protective

equipment for fire-fighters:

Self-contained breathing apparatus and full protective clothing must be

worn in case of fire.

SECTION 6: Accidental release measures

Personal precautions,

protective equipment and emergency procedures:

Wear appropriate personal protective equipment.

Environmental Precautions: Avoid release to the environment.

Methods and material for

containment and cleaning

up:

Sweep up and place in a clearly labeled container for chemical waste. Large Spillages: Flush spill area with water spray. Prevent runoff from

entering drains, sewers, or streams. Dike for later disposal.

Notification Procedures: In the event of a spill or accidental release, notify relevant authorities in

accordance with all applicable regulations.

SECTION 7: Handling and storage:

Precautions for safe handling: Do not get in eyes. Wash thoroughly after handling. Minimize dust

generation and accumulation.

Conditions for safe storage,

including any incompatibilities:

Keep container closed.



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Specific end use(s): Chemical Intermediate

SECTION 8: Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Country specific exposure limits have not been established or are not applicable

unless listed below.

Exposure controls

Appropriate engineering

controls:

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an

acceptable level.

Individual protection measures, such as personal protective equipment

General information: Eye bath. Washing facilities.

Eye/face protection: Wear safety glasses with side shields (or goggles) and a face shield.

Skin protection

Hand Protection: It is a good industrial hygiene practice to minimize skin contact.

Other: No data available.

Respiratory Protection: If engineering controls do not maintain airborne concentrations below

recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. In the United States of America, if respirators are used, a program should be instituted to assure compliance with OSHA Standard 63 FR 1152, January 8, 1998. Respirator type: Airpurifying respirator with an appropriate, government approved (where applicable), air-purifying filter, cartridge or canister. Contact health and

safety professional or manufacturer for specific information.

Hygiene measures: Observe good industrial hygiene practices.

Environmental Controls: No data available.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance

Physical state: solid
Form: solid
Color: White
Odor: Odorless

Odor Threshold: No data available.



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pH: neutral
Melting Point 47 °C
Boiling Point: 290 °C
Flash Point: 161 °C

Evaporation Rate:

Flammability (solid, gas):

Flammability Limit - Upper (%)—:

Flammability Limit - Lower (%)—:

Vapor pressure:

not applicable

No data available.

No data available.

not applicable

Vapor density (air=1): 7

Specific Gravity: 1.02 (25 °C)

Solubility(ies)

Solubility in Water: 274 g/l

Solubility (other):No data available.

Partition coefficient (n-octanol/water): Pow: 11.75 log Pow: 1.07 (estimated)

Autoignition Temperature: No data available.

Decomposition Temperature: Thermal stability not tested. Low stability hazard

expected at normal operating temperatures.

Dynamic viscosity:No data available.Kinematic viscosity:68.62 mm2/s (60 °C)Explosive properties:No data available.Oxidizing properties:No data available.

SECTION 10: Stability and reactivity

Reactivity: None known.

Chemical Stability: Stable

Possibility of Hazardous

Reactions:

None known.

Conditions to Avoid: None at ambient temperatures.

Incompatible Materials: Strong oxidizing agents.

Hazardous Decomposition

Products:

Carbon Dioxide. Carbon Monoxide.

SECTION 11: Toxicological information

Information on likely routes of exposure

Inhalation: None known.

Ingestion: None known.

Skin contact: None known.

Eye contact: Causes serious eye damage.



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Information on toxicological effects

Oral

Product: No data available.

Specified substance(s):

hydroxypivalyl Oral LD-50: (Rat): > 3,200 mg/kg

hydroxypivalate

Dermal

Product: No data available.

Specified substance(s):

hydroxypivalyl Dermal LD-50: (Guinea Pig): > 1,000 mg/kg

hydroxypivalate (highest dose tested)

Inhalation

Product: No data available.

Specified substance(s):

hydroxypivalyl LC50 (Rat, 6 h): > 1.18 mg/l (highest concentration obtainable)

hydroxypivalate

Repeated dose toxicity

Product: No data available.

Skin Corrosion/Irritation

Product: No data available.

Specified substance(s):

hydroxypivalyl (Guinea Pig, 24 h): Slight

hydroxypivalate

Serious Eye Damage/Eye Irritation

Product: No data available.

Specified substance(s):

hydroxypivalyl (Rabbit, 24 h): Severe

hydroxypivalate

Respiratory or Skin Sensitization

Product: No data available.

Specified substance(s):

hydroxypivalyl Skin Sensitization: (Guinea Pig): non-sensitizing

hydroxypivalate

Carcinogenicity

Product: No data available.

Toxicity to reproduction

Product: No data available.

Developmental toxicity



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Product: No data available.

Germ Cell Mutagenicity

In vitro

Product: No data available.

In vivo

Product: No data available.

Specific Target Organ Toxicity - Single Exposure
Product: No data available.

Specific Target Organ Toxicity - Repeated Exposure

Product: No data available.

Aspiration Hazard

Product: No data available.

Other effects: No data available.

SECTION 12: Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish

Product: No data available.

Specified substance(s):

hydroxypivalyl LC-50 (Fathead Minnow, 96 h): > 1,039.9 mg/l

hydroxypivalate

Aquatic Invertebrates

Product: No data available.

Specified substance(s):

hydroxypivalyl EC-50 (Water Flea, 48 h): > 559.6 mg/l

hydroxypivalate

Chronic hazards to the aquatic environment:

Fish

Product: No data available.

Aquatic Invertebrates

Product: No data available.

Toxicity to Aquatic Plants

Product: No data available.



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Persistence and Degradability

Biodegradation

Product: No data available.

Specified substance(s):

hydroxypivalyl hydroxypivalate Readily biodegradable

BOD/COD Ratio

Product: No data available.

Specified substance(s):

hydroxypivalyl hydroxypivalate Data available upon request.

Bioaccumulative Potential

Bioconcentration Factor (BCF)

Product: No data available.

Partition Coefficient n-octanol / water (log Kow)

Product: Log Kow: 1.07 (estimated)

Mobility in Soil: No data available.

Other Adverse Effects: No data available.

SECTION 13: Disposal considerations

Waste treatment methods

General information: No data available.

Disposal methods: Dispose of waste and residues in accordance with local authority

requirements. Incinerate. Since emptied containers retain product residue,

follow label warnings even after container is emptied.

SECTION 14: Transport information

Important Note: Shipping descriptions may vary based on mode of transport, quantities, package size, and/or origin and destination. Consult your company's Hazardous Materials/Dangerous Goods expert for information specific to your situation.

DOT

Class not regulated

IMDG - International Maritime Dangerous Goods Code

Class not regulated



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IATA

Class not regulated

SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture.:

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.

WHMIS (Canada) Status: controlled

WHMIS (Canada) Hazard Classification: D/2/B

SARA 311-312 Hazard Classification(s):

immediate (acute) health hazard fire hazard

US EPCRA (SARA Title III) Section 313 - Toxic Chemical List

NONE

OSHA: hazardous

TSCA (US Toxic Substances Control Act): This product is listed on the TSCA inventory. Any impurities present in this product are exempt from listing.

DSL (Canadian Domestic Substances List) and CEPA (Canadian Environmental Protection Act): This product is listed on the DSL. Any impurities present in this product are exempt from listing.

AICS / NICNAS (Australian Inventory of Chemical Substances and National Industrial Chemicals Notification and Assessment Scheme): This product is listed on AICS or otherwise complies with NICNAS.

MITI (Japanese Handbook of Existing and New Chemical Substances): This product is listed in the Handbook or has been approved in Japan by new substance notification.

ECL (Korean Toxic Substances Control Act): This product is listed on the Korean inventory or otherwise complies with the Korean Toxic Substances Control Act.KE-20461

Philippines Inventory (PICCS): This product is listed on the Philippine Inventory or otherwise complies with PICCS.

SECTION 16: Other information

HMIS® Hazard Ratings: Health - 3, Flammability - 1, Chemical Reactivity - 0

HMIS® rating involves data interpretations that may vary from company to company. They are intended only for rapid, general identification of the magnitude of the specific hazard. To deal adequately with the safe handling of this material, all the information contained in this MSDS must be considered.



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Revision Information: Not relevant.

Key literature references and

sources for data:

No data available.

Training information: No data available.

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SDS No.: Disclaimer:

This information is provided without warranty. The information is believed to

be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.