

Eastman Tenox(TM) 4B Food-Grade Antioxidant, Kosher

Version Revision Date: SDS Number: Date of last issue: -

2.1 11/16/2018 150000001494 Date of first issue: 09/06/2016

PRD SDSUS / Z8 / 0001

SECTION 1. IDENTIFICATION

Product name : Eastman Tenox(TM) 4B Food-Grade Antioxidant, Kosher

Product code : 13614-00, P1361400, P1361402, P1361404, P1361405,

P1361407

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 : antioxidant (food grade)

Restrictions on use : None known.

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with 29 CFR 1910.1200

Skin irritation : Category 2

Eye irritation : Category 2A

Specific target organ systemic toxicity - single

exposure

Category 3 (Respiratory system)

GHS label elements

Hazard pictograms :

Signal Word : Warning

Hazard Statements : H315 Causes skin irritation.

H319 Causes serious eye irritation. H335 May cause respiratory irritation.

Precautionary Statements : Prevention:

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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.

Storage:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

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

Ingredients

Chemical name	CAS-No.	Concentration (% w/w)
corn oil	8001-30-7	80
butylated hydroxyanisole	25013-16-5	20

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 reuse.

In case of eye contact : Remove contact lenses, if present and easy to do. Continue



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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 eye irritation.

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

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, protec- : tive equipment and emer-

gency procedures

Wear appropriate 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

Sweep up or vacuum up spillage and collect in suitable

container for disposal.

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 protection against :

fire and explosion

None known.

Advice on safe handling Avoid inhalation of vapor or mist.

Do not get in eyes.

Avoid contact with skin, eyes and clothing.

Do not swallow.

Ensure adequate ventilation.



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Wash thoroughly after handling.

Conditions for safe storage : 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 : light yellow

Odor : slight

Odor Threshold : not determined

pH : not determined

Melting point/range : not determined

Boiling point/boiling range : $> 896 \, ^{\circ}\text{F} / > 480 \, ^{\circ}\text{C}$



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Flash point : 306 °F / 152 °C

Method: Setaflash closed cup

Evaporation rate : not determined

Upper explosion limit / Upper

flammability limit

not determined

Lower explosion limit / Lower

flammability limit

not determined

Vapor pressure : not determined

Relative vapor density : not determined

Relative density : 0.95 (68 °F / 20 °C)

Solubility(ies)

Water solubility : negligible

Partition coefficient: n-

octanol/water

No data available

Autoignition temperature : not determined

Decomposition temperature : Thermal stability not tested. Low stability hazard expected at

normal operating temperatures.

Viscosity

Viscosity, dynamic : not determined

Viscosity, kinematic : not determined

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 reac-

tions

Stable

Conditions to avoid : None known.

Incompatible materials : Strong oxidizing agents



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Hazardous decomposition

products

: Carbon dioxide (CO2) Carbon monoxide

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:

butylated hydroxyanisole:

Acute oral toxicity : LD50 Oral (Rat): 1,600 - 3,200 mg/kg

Acute dermal toxicity : LD50 Dermal (Rabbit): > 2,000 mg/kg

Skin corrosion/irritation

Causes skin irritation.

Product:

Remarks : No data available

Ingredients:

butylated hydroxyanisole:

Species : Guinea pig
Exposure time : 24 h
Result : slight

Serious eye damage/eye irritation

Causes serious eye irritation.

Product:

Remarks : No data available

Ingredients:

butylated hydroxyanisole:

Result : Irritating to eyes.



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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

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

Product:

Remarks : This information is not available.

Carcinogenicity - Assess-

Carcinogenicity classification not possible from current data.

ment

IARC Group 2B: Possibly carcinogenic to humans

butylated hydroxyanisole 25013-16-5

OSHANo component of this product present at levels greater than or equal to 0.1% is

on OSHA's list of regulated carcinogens.

NTP Reasonably anticipated to be a human carcinogen

butylated hydroxyanisole 25013-16-5

Reproductive toxicity

Not classified based on available information.

Product:

Effects on fertility : Remarks: No data available

STOT-single exposure

May cause respiratory irritation.

Product:

Remarks : No data available

STOT-repeated exposure

Not classified based on available information.

Product:

Remarks : No data available



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Aspiration toxicity

Not classified based on available information.

Product:

No data available

No aspiration toxicity classification

Information on likely routes of exposure

Product:

Inhalation : Remarks: 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 : Contains butylated hydroxyanisole(BHA). Rats, mice, and

hamsters given high levels (1 and 2%) of BHA in their food have developed malignant tumors (cancer) of the forestomach. No excess incidence of benign or malignant tumors was seen in animals fed BHA at levels below 0.5%. In experimental feeding studies, the forestomach of rodents is almost continuously full of food. The continuous presence of food containing BHA causes prolonged irritation that leads to inflammation, necrosis (death of tissue cells), and ulceration. It is thought that this continuous tissue damage is responsible for producing the cancers. No inflammation or cancers were seen in the true (glandular) stomach of these rodents, even after prolonged feeding, nor were they seen in animals which do not have forestomachs (guinea pigs, dogs, and monkeys) fed BHA in the diet at levels around 1%. Since the stomach of humans is similar in structure to the glandular stomach of rodents and to the stomachs of dogs, monkeys, and guinea pigs, it is likely that BHA does not present a significant risk of cancer to humans exposed to BHA at levels typical of occupa-

tional exposures or consumer use.

Remarks : None known.

Ingredients:

butylated hydroxyanisole:

Remarks : Contains butylated hydroxyanisole(BHA). Rats, mice, and

hamsters given high levels (1 and 2%) of BHA in their food have developed malignant tumors (cancer) of the forestom-



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Prolonged or repeated exposure to smoke or fumes generated by heating this product may cause respiratory sensitization.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

No data available

Persistence and degradability

No data available

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

UN number : UN 3082



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Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.

(butylated hydroxyanisole)

Class : 9
Packing group : III
Labels : 9
EmS Code : F-A, S-F
Marine pollutant : no

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

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

Ingredients	CAS-No.	Component TPQ (lbs)

SARA 311/312 Hazards : Acute Health Hazard

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

WARNING: This product can expose you to chemicals including butylated hydroxyanisole, which is/are known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

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

DSL : All components of this product are on the Canadian DSL

AICS : On the inventory, or in compliance with the inventory

KECI: On the inventory, or in compliance with the inventory



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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

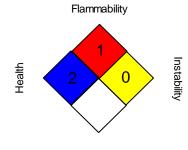
No substances are subject to a Significant New Use Rule.

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

SECTION 16. OTHER INFORMATION

Further information

NFPA 704:



Special hazard.

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



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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

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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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