

SAFETY DATA SHEET**TEC® 213 LIQUIDAM B**

Version 1.0

Revision Date 03/31/2021

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : TEC® 213 LIQUIDAM B
Product code : 100000015364

Manufacturer or supplier's details

Company : H.B. Fuller Company
Address : 1200 Willow Lake Boulevard
Vadnais Heights, MN 55110
Telephone : 1-888-423-8553

Medical Emergency Phone Number (24 Hours): 1-888-853-1758

Transport Emergency Phone Number (CHEMTREC): 1-800-424-9300

Recommended use of the chemical and restrictions on use

Recommended use : Epoxy curing agent
Restrictions on use : For industrial use only.

SECTION 2. HAZARDS IDENTIFICATION**Emergency Overview**

Appearance	liquid
Color	yellow
Odor	ammoniacal

GHS Classification

Acute toxicity (Oral) : Category 4
Acute toxicity (Dermal) : Category 4
Skin corrosion : Category 1
Serious eye damage : Category 1
Skin sensitization : Category 1
Reproductive toxicity : Category 2
Specific target organ toxicity - single exposure : Category 3 (Respiratory system)
Specific target organ toxicity - repeated exposure : Category 1

GHS label elements

SAFETY DATA SHEET
TEC® 213 LIQUIDAM B

Version 1.0

Revision Date 03/31/2021

Hazard pictograms : 

Signal Word : Danger

Hazard Statements:

H302 + H312 Harmful if swallowed or in contact with skin. H314 Causes severe skin burns and eye damage. H317 May cause an allergic skin reaction. H335 May cause respiratory irritation. H361 Suspected of damaging fertility or the unborn child. H372 Causes damage to organs through prolonged or repeated exposure.

Precautionary Statements:

Prevention: P201 Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood. P260 Do not breathe dust/ fume/ gas/ mist/ vapors/ spray. P264 Wash skin thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P271 Use only outdoors or in a well-ventilated area. P272 Contaminated work clothing must not be allowed out of the workplace. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response: P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth. P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower. P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor. P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER. P308 + P313 IF exposed or concerned: Get medical advice/ attention. P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention. P363 Wash contaminated clothing 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.

Potential Health Effects
Carcinogenicity:

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.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous ingredients

Chemical name	CAS-No.	Concentration [%]
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SAFETY DATA SHEET**TEC® 213 LIQUIDAM B**

Version 1.0

Revision Date 03/31/2021

Phenol, 4-nonyl-, branched	84852-15-3	30 - 50
2-piperazin-1-ylethylamine	140-31-8	20 - 30
Aliphatic amine	Not Assigned	20 - 30
benzyl alcohol	100-51-6	1 - 5
3-aminomethyl-3,5,5-trimethylcyclohexylamine	2855-13-2	1 - 5
trimethylhexane-1,6-diamine	25620-58-0	0.1 - 1

Actual concentration is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

- General advice : Show this material safety data sheet to the doctor in attendance.
- If inhaled : Move to fresh air.
If not breathing, give artificial respiration.
Keep patient warm and at rest.
Consult a physician after significant exposure.
- In case of skin contact : Take off all contaminated clothing immediately.
Wash off immediately with soap and plenty of water.
Call a physician if irritation develops or persists.
Wash contaminated clothing before re-use.
- In case of eye contact : Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Get medical attention.
Protect unharmed eye.
- If swallowed : If swallowed, call a poison control center or doctor immediately.
Do NOT induce vomiting.
If victim is fully conscious, give a cupful of water.
If possible drink milk afterwards.

SECTION 5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- Specific extinguishing methods :
- Further information : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Special protective equipment for fire-fighters : Wear an approved positive pressure self-contained breathing apparatus in addition to standard fire fighting gear.

SAFETY DATA SHEET**TEC® 213 LIQUIDAM B**

Version 1.0

Revision Date 03/31/2021

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Refer to protective measures listed in sections 7 and 8.
- Environmental precautions : Prevent product from entering drains.
Do not flush into surface water or sanitary sewer system.
- Methods and materials for containment and cleaning up : Soak up with inert absorbent material.
Shovel into suitable container for disposal.

SECTION 7. HANDLING AND STORAGE

- Local/Total ventilation : Use only with adequate ventilation.
- Advice on safe handling : Wear personal protective equipment.
Do not get on skin or clothing.
Use only in an area equipped with a safety shower.
- Conditions for safe storage : Keep containers tightly closed in a dry, cool and well-ventilated place.
- Materials to avoid : No special restrictions on storage with other products.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Ingredients with workplace control parameters**

Contains no substances with occupational exposure limit values.

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.
- Filter type : Combined particulates and organic vapor type
- Hand protection
Material : butyl-rubber
- Eye protection : Safety goggles
Face-shield
Ensure that eyewash stations and safety showers are close to the workstation location.

SAFETY DATA SHEET**TEC® 213 LIQUIDAM B**

Version 1.0

Revision Date 03/31/2021

Skin and body protection	: Long sleeved clothing Chemical resistant apron
Protective measures	: Avoid contact with skin.
Hygiene measures	: Avoid contact with skin, eyes and clothing.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: liquid
Color	: yellow
Odor	: ammoniacal
Odor Threshold	: No data available
Melting point/freezing point	: is not determined
Boiling point/boiling range	: is not determined
Flash point	: Not applicable
Evaporation rate	: is not determined
Flammability (solid, gas)	: Not classified as a flammability hazard
Upper explosion limit	: Upper flammability limit is not determined
Lower explosion limit	: Lower flammability limit is not determined
Density	: 8.0 - 8.2 lb/gal
Solubility(ies)	
Water solubility	: is not determined
Partition coefficient: n- octanol/water	: No data available
Autoignition temperature	: is not determined
Viscosity	
Viscosity, dynamic	: is not determined
Viscosity, kinematic	: is not determined
Solid Content, % by weight:	: 100

SECTION 10. STABILITY AND REACTIVITY

Chemical stability	: The product is chemically stable.
Hazardous decomposition products	: Stable under normal conditions.

SAFETY DATA SHEET

TEC® 213 LIQUIDAM B

Version 1.0

Revision Date 03/31/2021

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:Acute oral toxicity : Acute toxicity estimate : 733.34 mg/kg
Method: Calculation methodAcute inhalation toxicity : Acute toxicity estimate : 39.03 mg/l
Exposure time: 4 h
Test atmosphere: vapor
Method: Calculation methodAcute dermal toxicity : Acute toxicity estimate : 1,942 mg/kg
Method: Calculation method**Components:****Phenol, 4-nonyl-, branched:**

Acute oral toxicity : LD50 Oral Rat: 580 mg/kg

Acute dermal toxicity : LD50 Dermal Rabbit: 2,031 mg/kg

2-piperazin-1-ylethylamine:

Acute oral toxicity : LD50 Oral Rat: 2,140 mg/kg

Acute dermal toxicity : LD50 Dermal Rabbit: 880 mg/kg

benzyl alcohol:

Acute oral toxicity : LD50 Oral Rat: 1,230 mg/kg

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

3-aminomethyl-3,5,5-trimethylcyclohexylamine:

Acute oral toxicity : LD50 Oral Rat: 1,030 mg/kg

trimethylhexane-1,6-diamine:

Acute oral toxicity : LD50 Oral Rat: 910 mg/kg

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitization

SAFETY DATA SHEET

TEC® 213 LIQUIDAM B

Version 1.0

Revision Date 03/31/2021

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

No data available

Reproductive toxicity

No data available

STOT-single exposure

No data available

STOT-repeated exposure

No data available

Aspiration toxicity

No data available

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity****Components:****Phenol, 4-nonyl-, branched :**

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 0.135 mg/l
Exposure time: 96 h
Test Method: flow-through test

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): 0.14 mg/l
aquatic invertebrates : Exposure time: 48 h
Test Method: static test

Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (microalgae)): 0.16 -
0.72 mg/l
Exposure time: 72 h
Test Type: static test

2-piperazin-1-ylethylamine :

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): 32 mg/l
aquatic invertebrates : Exposure time: 48 h
Test Method: static test

benzyl alcohol :

Toxicity to fish : LC50 (Lepomis macrochirus (Bluegill sunfish)): 10 mg/l
Exposure time: 96 h

SAFETY DATA SHEET

TEC® 213 LIQUIDAM B

Version 1.0

Revision Date 03/31/2021

Test Method: static test

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia): 23 mg/l
Exposure time: 48 h
Test Method: static test

Toxicity to algae : EC50 (Chlorella vulgaris (Fresh water algae)): 35 mg/l
Exposure time: 3 h
Test Type: flow-through test

3-aminomethyl-3,5,5-trimethylcyclohexylamine :

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 14.6 - 21.5 mg/l
Exposure time: 48 h
Test Method: semi-static test

Toxicity to algae : EC50 (Desmodesmus subspicatus (green algae)): 37 mg/l
Exposure time: 72 h
Test Type: flow-through test

trimethylhexane-1,6-diamine :

Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): 172 mg/l
Exposure time: 48 h
Test Method: static test

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 31.5 mg/l
Exposure time: 24 h
Test Method: static test

Toxicity to algae : EC50 (Desmodesmus subspicatus (green algae)): 29.5 mg/l
Exposure time: 72 h
Test Type: flow-through test

Persistence and degradability

No data available

Bioaccumulative potential**Mobility in soil**

No data available

Other adverse effects

No data available

SECTION 13. DISPOSAL CONSIDERATIONS**Disposal methods**

Waste from residues : To the best of our knowledge, this product does not meet the definition of hazardous waste under the U.S. EPA Hazardous Waste Regulations 40 CFR 261. Disposal via incineration at

SAFETY DATA SHEET**TEC® 213 LIQUIDAM B**

Version 1.0

Revision Date 03/31/2021

an approved facility is recommended, as industry best practice. Consult state, local or provincial authorities for more restrictive requirements.

SECTION 14. TRANSPORT INFORMATION**Special precautions for user**

Not applicable

Domestic regulation**49 CFR**

UN/ID/NA number : 2735
Proper shipping name : Amines, liquid, corrosive, n.o.s.
(AMINO ETHER, CYCLOALIPHATIC AMINE)
Class : 8
Packing group : III
Labels : 8
ERG Code : 153
Marine pollutant : no

International Regulations**IATA-DGR**

UN/ID No. : 2735
Proper shipping name : Amines, liquid, corrosive, n.o.s.
(AMINO ETHER, CYCLOALIPHATIC AMINE)
Class : 8
Packing group : III
Labels : 8
Packing instruction (cargo aircraft) : 856
Packing instruction (passenger aircraft) : 852

IMDG-Code

UN number : 2735
Proper shipping name : AMINES, LIQUID, CORROSIVE, N.O.S.
Class : 8
Packing group : III
Labels : 8
EmS Code : F-A, S-B
Marine pollutant : no

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

SAFETY DATA SHEET**TEC® 213 LIQUIDAM B**

Version 1.0

Revision Date 03/31/2021

SECTION 15. REGULATORY INFORMATION

SARA 311/312 Hazards : Acute toxicity (any route of exposure)
Respiratory or skin sensitization
Reproductive toxicity
Specific target organ toxicity (single or repeated exposure)
Skin corrosion or irritation
Serious eye damage or eye irritation

SARA 302 : This material does not contain any components with a section 302 EHS TPQ.

SARA 313 : The following components are subject to reporting levels established by SARA Title III, Section 313:

Phenol, 4-nonyl-, branched 84852-15-3

Clean Air Act

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

US State Regulations

California Prop 65 : Please contact Supplier for more information.

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

DSL All components of this product are on the Canadian DSL
AIIC 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
Inventories Legend TSCA (USA), DSL (Canada), REACH(Europe), AICS (Australia), NZIoC (New Zealand), ENCS (Japan), KECI (Korea), PICCS (Philippines), IECSC (China), TWINV (Taiwan)

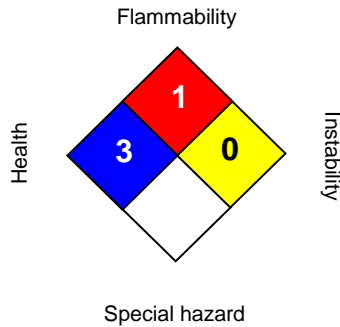
SECTION 16. OTHER INFORMATION

Prepared by: Global Regulatory Department - phone: 1-651-236-5842 - email: msds.request@hbfuller.com

SAFETY DATA SHEET
TEC® 213 LIQUIDAM B

Version 1.0

Revision Date 03/31/2021

Further information
NFPA:

HMIS III:

HEALTH	3*
FLAMMABILITY	1
PHYSICAL HAZARD	0

0 = not significant, 1 =Slight,
 2 = Moderate, 3 = High
 4 = Extreme, * = Chronic

The information and recommendations set forth herein are believed to be accurate. Because some of the information is derived from information provided to the H.B. Fuller Company from its suppliers, and because the H.B. Fuller Company has no control over the conditions of handling and use, the H.B. Fuller Company makes no warranty, expressed or implied, regarding the accuracy of the data or the results to be obtained from the use thereof. The information is supplied solely for your information and consideration, and the H.B. Fuller Company assumes no responsibility for use or reliance thereon. It is the responsibility of the user of H.B. Fuller Company products to comply with all applicable federal, state and local laws and regulations.