Safety Data Sheet
acc. to OSHA HCS

Date of issue: 07/28/2026 *Reviewed on 07/28/2026*

1 Identification

- ***Product identifier***
  - ***Trade name:*** Expand-A-Seal™
    - ***Synonyms:*** Expand-A-Seal™ - Controlled Strength (APPLIED)
- ***Other means of identification***
  - ***Part number:*** ES0106-Applied
- ***Application of the substance / the mixture***
  Sealing
  Sealant
- ***Details of the supplier of the safety data sheet***
  - ***Manufacturer/Supplier:***
  ND Industries, a subsidiary of H.B. Fuller Company
  1000 North Crooks Road
  Clawson, MI 48017
  USA
  Telephone: +1-248-288-0000
  Email: nd-info@hbfuller.com
  Websites: www.ndindustries.com | www.vibra-tite.com
  - ***Information department:*** Product Safety Department
- ***Emergency telephone number:***
  United States: 1-800-424-9300
  International: +1-703-527-3887

*
2 Hazard(s) identification

- ***Classification of the substance or mixture***

GHS08 Health hazard

Germ cell mutagenicity 2	H341 Suspected of causing genetic defects.
Specific target organ toxicity (repeated exposure) 2	H373 May cause damage to organs through prolonged or repeated exposure.

GHS05 Corrosion

Eye damage 1	H318 Causes serious eye damage.

GHS07

Skin irritation 2	H315 Causes skin irritation.
Sensitization - skin 1	H317 May cause an allergic skin reaction.

- ***Label elements***
  - ***GHS label elements*** The product is classified and labeled according to the Globally Harmonized System (GHS).
    - ***Hazard pictograms***

GHS05 GHS07 GHS08

    - ***Signal word*** Danger
    - ***Hazard-determining components of labeling:***
    Epoxy Curing Agent
    Epoxy resin
    Bisphenol F epoxy resin
    Aminophenol
    - ***Hazard statements***
    H315 Causes skin irritation.
    H318 Causes serious eye damage.
    H317 May cause an allergic skin reaction.

(Contd. on page 2)

Safety Data Sheet
acc. to OSHA HCS

Date of issue: 07/28/2026 *Reviewed on 07/28/2026*

Trade name: Expand-A-Seal™

(Contd. of page 1)

H341 Suspected of causing genetic defects.
H373 May cause damage to organs through prolonged or repeated exposure.

- ***Precautionary statements***

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.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray
P264	Wash thoroughly after handling.
P272	Contaminated work clothing must not be allowed out of the workplace.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P280	Wear protective gloves.
P280	Wear eye protection / face protection.
P302+P352	If on skin: Wash with plenty of water.
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/doctor.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P321	Specific treatment (see on this label).
P314	Get medical advice/attention if you feel unwell.
P362+P364	Take off contaminated clothing and wash it before reuse.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

- ***Other hazards***
  - ***Results of PBT and vPvB assessment***
    - ***PBT:*** Not applicable
    - ***vPvB:*** Not applicable
- ***Classification according to (d)(1)(ii) of § 1910.1200***
The SDS issuer does not object to the classifications provided by importers or manufacturers of precursor products.
- ***Hazards not otherwise classified***
There are no adverse physical or health effects known that are not covered by the hazard classes of the Hazard Communications Standard.

* 3 Composition/information on ingredients

- ***Chemical characterization: Mixtures***
  - ***Description:*** Mixture of the substances listed below with nonhazardous additions.
  - ***Dangerous components:***

CAS: 25036-13-9	Polyoxymethylene melamine urea Skin irritation 2, H315	15 – 40%
CAS: 9003-36-5	Bisphenol F epoxy resin Skin irritation 2, H315; Sensitization - skin 1, H317	10 – 30%
CAS: 28064-14-4	Epoxy resin Skin irritation 2, H315; Eye irritation 2A, H319; Sensitization - skin 1, H317; Specific target organ toxicity (single exposure) 3, H335	10 – 30%
	Epoxy Curing Agent Germ cell mutagenicity 2, H341; Specific target organ toxicity (repeated exposure) 2, H373; Eye damage 1, H318; Skin irritation 2, H315; Sensitization - skin 1, H317	10 – 30%
CAS: 25133-98-6	Acrylic Resin Combustible Dust	5 – 10%
CAS: 90-72-2	Aminophenol Skin corrosion 1C, H314; Eye damage 1, H318; Acute toxicity - oral 4, H302; Acute toxicity - dermal 4, H312	1 – 5%

4 First-aid measures

- ***Description of first aid measures***
  - ***General information:***
  Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
  - ***After inhalation:***
  Supply fresh air and to be sure call for a doctor.
  In case of unconsciousness place patient stably in side position for transportation.
  Supply fresh air; consult doctor in case of complaints.
  - ***After skin contact:*** Immediately wash with water and soap and rinse thoroughly.
  - ***After eye contact:*** Rinse opened eye for several minutes under running water. Then consult a doctor.
  - ***After swallowing:*** If symptoms persist consult doctor.
- ***Most important symptoms and effects, both acute and delayed*** No further relevant information available.

(Contd. on page 3)

Safety Data Sheet
acc. to OSHA HCS

Date of issue: 07/28/2026 *Reviewed on 07/28/2026*

Trade name: Expand-A-Seal™

(Contd. of page 2)

- ***Indication of any immediate medical attention and special treatment needed*** No further relevant information available.

5 Fire-fighting measures

- ***Extinguishing media***
  - ***Suitable extinguishing agents:***
    CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- ***Special hazards arising from the substance or mixture*** No further relevant information available.
- ***Advice for firefighters***
  - ***Protective equipment:***
    Wear self-contained respiratory protective device.
    Wear fully protective suit.

6 Accidental release measures

- ***Personal precautions, protective equipment and emergency procedures***
  Ensure adequate ventilation
  Wear protective clothing.
- ***Environmental precautions:***
  Inform respective authorities in case of seepage into water course or sewage system.
  Do not allow to enter sewers/ surface or ground water.
- ***Methods and material for containment and cleaning up:***
  Dispose contaminated material as waste according to section 13.
  Ensure adequate ventilation.
  Dispose of the collected material according to regulations.
- ***Reference to other sections***
  See Section 7 for information on safe handling.
  See Section 8 for information on personal protection equipment.
  See Section 13 for disposal information.

7 Handling and storage

- ***Precautions for safe handling***
  Ensure good ventilation/exhaustion at the workplace.
  Open and handle receptacle with care.
  - ***Information about protection against explosions and fires:*** Keep respiratory protective device available.
- ***Conditions for safe storage, including any incompatibilities***
  - ***Storage:***
    - ***Requirements to be met by storerooms and receptacles:*** No special requirements.
    - ***Information about storage in one common storage facility:*** Not required
    - ***Further information about storage conditions:*** Store in cool, dry conditions in well sealed receptacles.
- ***Specific end use(s)*** No further relevant information available.

8 Exposure controls/personal protection

- ***Control parameters***
  - ***Components with limit values that require monitoring at the workplace:***
    The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
    - ***Additional information:*** The lists that were valid during the creation were used as basis.
- ***Exposure controls***
  - ***Appropriate engineering controls*** No further data; see section 7.
  - ***Personal protective equipment:***
    - ***General protective and hygienic measures:***
      Keep away from foodstuffs, beverages and feed.
      Immediately remove all soiled and contaminated clothing.
      Wash hands before breaks and at the end of work.
      Store protective clothing separately.
      Avoid contact with the skin.
      Avoid contact with the eyes and skin.
    - ***Breathing equipment:***
      Not required
      In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
    - ***Protection of hands:***

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

(Contd. on page 4)

Safety Data Sheet
acc. to OSHA HCS

Date of issue: 07/28/2026 *Reviewed on 07/28/2026*

Trade name: Expand-A-Seal™

(Contd. of page 3)

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- ***Material of gloves***
  The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
  Nitrile rubber, NBR
- ***Penetration time of glove material***
  The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- ***Eye protection:***
Required use of safety glasses

Tightly sealed goggles

- ***Body protection:*** Protective work clothing

*
9 Physical and chemical properties

- ***Information on basic physical and chemical properties***	
- ***General Information***	
- ***Physical state***	Solid
- ***Color:***	According to product specification
- ***Odor:***	Aromatic
- ***Odor threshold:***	Not determined
- ***Melting point/Melting range:***	Undetermined
- ***Boiling point/Boiling range:***	> 200 °C (> 392 °F)
- ***Flammability:***	Not determined
- ***Explosion limits:***	
- ***Lower:***	1.2 Vol %
- ***Upper:***	7 Vol %
- ***Flash point:***	4 °C (39.2 °F)
- ***Auto igniting:***	535 °C (995 °F)
- ***Decomposition temperature:***	Not determined
- ***pH-value:***	Not applicable
- ***Viscosity:***	
- ***Kinematic:***	Not applicable
- ***Dynamic:***	Not applicable
- ***Solubility in / Miscibility with***	
- ***Water:***	Insoluble.
- ***Partition coefficient (n-octanol/water):***	Not determined
- ***Vapor pressure at 20 °C (68 °F):***	n.a. hPa
- ***Vapor pressure at 50 °C (122 °F):***	≤ 124 hPa (≤ 93 mm Hg)
- ***Density:***	Not determined
- ***Relative density***	Not determined
- ***Vapor density***	Not applicable
- ***Particle characteristics***	Not determined
- ***Other information***	
- ***Appearance:***	
- ***Form:***	Liquid
- ***Important information on protection of health and environment, and on safety.***	
- ***Ignition temperature:***	Product is not selfigniting.
- ***Danger of explosion:***	Product does not present an explosion hazard.
- ***Solvent content:***	
- ***VOC content:***	0.00 %
- ***Solids content:***	61.5 %
- ***Change in condition***	
- ***Evaporation rate***	Not applicable.

10 Stability and reactivity

- ***Reactivity*** No further relevant information available.
- ***Chemical stability***
  - ***Thermal decomposition / conditions to be avoided:*** No decomposition if used according to specifications.
- ***Possibility of hazardous reactions*** No dangerous reactions known.

(Contd. on page 5)

Safety Data Sheet
acc. to OSHA HCS

Date of issue: 07/28/2026 *Reviewed on 07/28/2026*

Trade name: Expand-A-Seal™

(Contd. of page 4)

- ***Conditions to avoid*** No further relevant information available.
- ***Incompatible materials:*** No further relevant information available.
- ***Hazardous decomposition products:*** No dangerous decomposition products known.

* 11 Toxicological information

- ***Information on toxicological effects***
  - ***Acute toxicity:***

- *LD/LC50 values that are relevant for classification:*		
ATE (Acute Toxicity Estimate)		
Oral	LD50	78,431 mg/kg (rat)
Dermal	LD50	130,719 mg/kg (rat)

CAS: 90-72-2 Aminophenol		
Oral	LD50	1,200 mg/kg (rat)
Dermal	LD50	2,000 mg/kg (rat)

  - ***Primary irritant effect:***
    - ***on the skin:*** Irritant to skin and mucous membranes.
    - ***on the eye:*** Strong irritant with the danger of severe eye injury.
  - ***Sensitization:*** Sensitization possible through skin contact.
- ***Additional toxicological information:***
The product shows the following dangers according to internally approved calculation methods for preparations:
Irritant
The product can cause inheritable damage.
  - ***Interactive effects*** No interactive effects between components are known.

  - ***Carcinogenic categories***

- *IARC (International Agency for Research on Cancer)*		
CAS: 9002-84-0	Polytetrafluoroethylene	3
CAS: 7631-86-9	Silicon dioxide, Untreated fumed	3
CAS: 13463-67-7	titanium dioxide	2B

- *NTP (National Toxicology Program)*
None of the ingredients is listed.

- *OSHA-Ca (Occupational Safety & Health Administration)*
None of the ingredients is listed.

  - ***Alternative sources for toxicological information*** No non-standard sources for toxicological information where used.

12 Ecological information

- ***Toxicity***
  - ***Aquatic toxicity:*** No further relevant information available.
- ***Persistence and degradability*** No further relevant information available.
- ***Bioaccumulative potential*** No further relevant information available.
- ***Mobility in soil*** No further relevant information available.
- ***Results of PBT and vPvB assessment***
  - ***PBT:*** Not applicable
  - ***vPvB:*** Not applicable
- ***Other adverse effects***
  - ***Remark:*** Harmful to fish
  - ***Additional ecological information:***
    - ***General notes:***
Water hazard class 2 (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.
Harmful to aquatic organisms

13 Disposal considerations

- ***Waste treatment methods***
  - ***Recommendation:*** Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

  - ***Uncleaned packagings:***
    - ***Recommendation:*** Disposal must be made according to official regulations.

(Contd. on page 6)

Safety Data Sheet
acc. to OSHA HCS

Date of issue: 07/28/2026 *Reviewed on 07/28/2026*

Trade name: Expand-A-Seal™

(Contd. of page 5)

14 Transport information

- ***UN-Number***	
- ***DOT, IMDG, IATA***	not regulated
- ***UN proper shipping name***	
- ***DOT, IMDG, IATA***	not regulated
- ***Transport hazard class(es)***	
- ***DOT, ADN, IMDG, IATA***	
- ***Class***	not regulated
- ***Packing group***	
- ***DOT, IMDG, IATA***	not regulated
- ***Environmental hazards:***	Not applicable
- ***Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code***	Not applicable
- ***Special precautions for user***	Not applicable
- ***UN "Model Regulation":***	not regulated

15 Regulatory information

- ***Safety, health and environmental regulations/legislation specific for the substance or mixture***
- ***Sara***

- ***Section 355 (extremely hazardous substances):***

None of the ingredients is listed.

- ***Section 313 (Specific toxic chemical listings):***

None of the ingredients is listed.

- ***TSCA (Toxic Substances Control Act):***

All components have the value ACTIVE.

- ***Hazardous Air Pollutants***

None of the ingredients is listed.

- ***Proposition 65***

- ***Chemicals known to cause cancer:***

None of the ingredients is listed.

- ***Chemicals known to cause reproductive toxicity for females:***

None of the ingredients is listed.

- ***Chemicals known to cause reproductive toxicity for males:***

None of the ingredients is listed.

- ***Chemicals known to cause developmental toxicity:***

None of the ingredients is listed.

- ***Carcinogenic categories***

- ***EPA (Environmental Protection Agency)***

None of the ingredients is listed.

- ***TLV (Threshold Limit Value)***

CAS: 13463-67-7	titanium dioxide	A4

- ***NIOSH-Ca (National Institute for Occupational Safety and Health)***

CAS: 13463-67-7	titanium dioxide

- ***Chemical safety assessment:*** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- ***Department issuing SDS:*** H.B. Fuller Company | ND Industries Health and Environmental Affaires
- ***Contact:*** Safety, Health and Environmental Affaires

(Contd. on page 7)

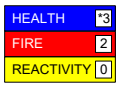
Safety Data Sheet
acc. to OSHA HCS

Date of issue: 07/28/2026 *Reviewed on 07/28/2026*

Trade name: Expand-A-Seal™

(Contd. of page 6)

- ***Classification System:***
  - ***HMIS-ratings (scale 0 - 4)***



Health = *3
Fire = 2
Reactivity = 0

  - ***NFPA ratings (scale 0 - 4)***

Health = 3
Fire = 2
Reactivity = 0

- ***Date of previous version*** 04/03/2024
- ***Version number of previous version:*** 3
- ***Date of preparation*** 07/28/2026
- ***Abbreviations and acronyms:***

IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
Acute toxicity - oral 4: Acute toxicity – Category 4
Skin corrosion 1C: Skin corrosion/irritation – Category 1C
Skin irritation 2: Skin corrosion/irritation – Category 2
Eye damage 1: Serious eye damage/eye irritation – Category 1
Eye irritation 2A: Serious eye damage/eye irritation – Category 2A
Sensitization - skin 1: Skin sensitisation – Category 1
Germ cell mutagenicity 2: Germ cell mutagenicity – Category 2
Specific target organ toxicity (single exposure) 3: Specific target organ toxicity (single exposure) – Category 3
Specific target organ toxicity (repeated exposure) 2: Specific target organ toxicity (repeated exposure) – Category 2

- **** Data compared to the previous version altered.***

- ***Disclaimer***

IMPORTANT: Information, specifications, procedures and recommendations provided (“information”) are based on our experience and we believe this to be accurate. No representation, guarantee or warranty is made as to the accuracy or completeness of the information, or that use of the product will avoid losses or damages or give desired results. It is user’s sole responsibility to test and determine the suitability of any product for the intended use. Tests should be repeated if materials or conditions change in any way. The user is advised to review the specific context of the intended use to determine whether the user’s intended use violates any law or infringes upon any patent(s). No employee, distributor or agent has any right to change these facts and offer a guarantee of performance.

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