

Safety Data Sheet

acc. to OSHA HCS

Date of issue: 07/24/2026

Reviewed on 08/28/2025

1 Identification

- Product identifier

- **Trade name:** ND Microspheres® Epoxy Series

- **Synonyms:** 1193SN Microspheres - Applied

- Other means of identification

- **Part number:** 1193SN - Applied

- **Application of the substance / the mixture** Adhesives

- 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

Specific target organ toxicity (repeated exposure) 2 H373 May cause damage to organs through prolonged or repeated exposure.



GHS07

Skin irritation 2

H315 Causes skin irritation.

Sensitization - skin 1B

H317 May cause an allergic skin reaction.

Eye irritation 2B

H320 Causes eye irritation.

- Label elements

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

- Hazard pictograms



GHS07 GHS08

- **Signal word** Warning

- Hazard-determining components of labeling:

Epoxy resin
Curing Agent
Reactive stabilizer

- Hazard statements

H315+H320 Causes skin and eye irritation.
H317 May cause an allergic skin reaction.
H373 May cause damage to organs through prolonged or repeated exposure.

- Precautionary statements

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.
P302+P352 If on skin: Wash with plenty of water.

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P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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.

P321 Specific treatment (see on this label).

P337+P313 If eye irritation persists: Get medical advice/attention.

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	15 – 40%
	Skin irritation 2, H315	
CAS: 28064-14-4	Epoxy resin	15 – 40%
	Skin irritation 2, H315; Eye irritation 2A, H319; Sensitization - skin 1, H317; Specific target organ toxicity (single exposure) 3, H335	
CAS: 1761-71-3	Curing Agent	10 – 30%
	Specific target organ toxicity (repeated exposure) 2, H373; Skin corrosion 1B, H314; Acute toxicity - oral 4, H302; Sensitization - skin 1, H317	
CAS: 63148-65-2	Binding agent	3 – 7%
	Combustible Dust	
CAS: 13463-67-7	titanium dioxide	1 – 5%
CAS: 112-57-2	Reactive stabilizer	0.1 – 1%
	Skin corrosion 1B, H314; Acute toxicity - dermal 4, H312; Sensitization - skin 1, H317	

4 First-aid measures

- Description of first aid measures

- **General information:** Immediately remove any clothing soiled by the product.

- 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:** Drink copious amounts of water and provide fresh air. Immediately call a doctor.

- **Most important symptoms and effects, both acute and delayed** No further relevant information available.

- **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

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

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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:

Use neutralizing agent.
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

Thorough dedusting.
Ensure good ventilation/exhaustion at the workplace.

- Information about protection against explosions and fires: No special measures required.

- 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:** Keep receptacle tightly sealed.

- 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:**

At this time, the other constituents have no known exposure limits.

CAS: 13463-67-7 titanium dioxide

PEL	Long-term value: 15* mg/m ³ *total dust
REL	See Pocket Guide App. A
TLV	Long-term value: 0.2* 2.5** mg/m ³ resp. fraction, *nanoscale, **finescale, A3

CAS: 112-57-2 Reactive stabilizer

WEEL	Long-term value: 5 mg/m ³ Skin; DSEN
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- 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.
Avoid contact with the eyes and skin.

- Breathing equipment:

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.

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.

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- 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:

Pale

- Odor:

Odorless

- Odor threshold:

Not determined

- Melting point/Melting range:

Undetermined

- Boiling point/Boiling range:

> 200 °C (> 392 °F)

- Flammability:

Not determined

- Explosion limits:**- Lower:**

Not determined

- Upper:

Not determined

- Flash point:

> 96 °C (> 204.8 °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:**- Density at 20 °C (68 °F):**~ 1.1 g/cm³ (~ 9.1795 lbs/gal)**- Relative density**

Not determined

- Vapor density

Not applicable

- Particle characteristics

Not determined

- Other information**- Appearance:****- Form:**

Solid

- 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:**- Water:**

0.2 %

- VOC content:

0.00 %

- Solids content:

82.8 %

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

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*11 Toxicological information

- Information on toxicological effects

- Acute toxicity:

- LD/LC50 values that are relevant for classification:

ATE (Acute Toxicity Estimate)

Oral	LD50	3,077 mg/kg
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CAS: 1761-71-3 Curing Agent

Oral	LD50	500 mg/kg (ATE)
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CAS: 13463-67-7 titanium dioxide

Oral	LD50	> 20,000 mg/kg (rat)
Dermal	LD50	> 10,000 mg/kg (rabbit)
Inhalative	LC50/4 h	> 6.82 mg/l (rat)

CAS: 112-57-2 Reactive stabilizer

Oral	LD50	2,140 mg/kg (rat)
Dermal	LD50	> 660 mg/kg (rabbit)

- Primary irritant effect:

- **on the skin:** Caustic effect on skin and mucous membranes.

- **on the eye:** Strong caustic effect.

- **Sensitization:** Sensitization possible through skin contact.

- Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations:

Corrosive

Irritant

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

- **Interactive effects** No interactive effects between components are known.

- Carcinogenic categories

- IARC (International Agency for Research on Cancer)

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:** Toxic for 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.

Must not reach bodies of water or drainage ditch undiluted or unneutralized.

Danger to drinking water if even small quantities leak into the ground.

Also poisonous for fish and plankton in water bodies.

Toxic for 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.

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

14 Transport information

- UN-Number	
- DOT, ADN, IMDG, IATA	not regulated
- UN proper shipping name	
- DOT, ADN, IMDG, IATA	not regulated
- Transport hazard class(es)	
- DOT, ADN, IMDG, IATA	
- Class	not regulated
- Packing group	
- DOT, IMDG, IATA	not regulated
- Environmental hazards:	
- Marine pollutant:	No
- 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 Affairs

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- **Contact:** Safety, Health and Environmental Affairs- **Classification System:**- **HMIS-ratings (scale 0 - 4)**

HEALTH	1	Health = 1
FIRE	1	Fire = 1
REACTIVITY	0	Reactivity = 0

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

1	1	0	Health = 1
1	1	0	Fire = 1
1	1	0	Reactivity = 0

- **Date of previous version** 03/11/2025- **Version number of previous version:** 15- **Date of preparation** 07/24/2026- **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 1B: Skin corrosion/irritation – Category 1B
 Skin irritation 2: Skin corrosion/irritation – Category 2
 Eye irritation 2A: Serious eye damage/eye irritation – Category 2A
 Eye irritation 2B: Serious eye damage/eye irritation – Category 2B
 Sensitization - skin 1: Skin sensitisation – Category 1
 Sensitization - skin 1B: Skin sensitisation – Category 1B
 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**

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