

Safety Data Sheet

ENERTITE® IB 418 RESIN

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Version: 5.0

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1. Identification

Product identifier used on the label

ENERTITE* IB 418 RESIN

Recommended use of the chemical and restriction on use

Recommended use*: polyurethane component; industrial chemicals
Suitable for use in industrial sector: Polymers industry; chemical industry

* The "Recommended use" identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

Details of the supplier of the safety data sheet

Company:
BASF CORPORATION
100 Park Avenue
Florham Park, NJ 07932, USA

Telephone: +1 973 245-6000

Emergency telephone number

CHEMTREC: 1-800-424-9300
BASF HOTLINE: 1-800-832-HELP (4357)

Other means of identification

Chemical family: resin
Synonyms: Urethane System Resin Component

2. Hazards Identification

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Classification of the product

Skin Corr./Irrit.	2	Skin corrosion/irritation
Eye Dam./Irrit.	2A	Serious eye damage/eye irritation
Aquatic Acute	3	Hazardous to the aquatic environment - acute

Label elements

Pictogram:

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Signal Word:
Warning

Hazard Statement:

H319 Causes serious eye irritation.
H315 Causes skin irritation.
H402 Harmful to aquatic life.

Precautionary Statements (Prevention):

P280 Wear protective gloves and eye/face protection.
P273 Avoid release to the environment.
P264 Wash with plenty of water and soap thoroughly after handling.

Precautionary Statements (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.
P303 + P352 IF ON SKIN (or hair): Wash with plenty of soap and water.
P332 + P313 If skin irritation occurs: Get medical advice/attention.
P337 + P311 If eye irritation persists: Call a POISON CENTER or doctor/physician.
P362 + P364 Take off contaminated clothing and wash it before reuse.

Precautionary Statements (Disposal):

P501 Dispose of contents/container to hazardous or special waste collection point.

Hazards not otherwise classified

No specific dangers known, if the regulations/notes for storage and handling are considered.

3. Composition / Information on Ingredients

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

<u>CAS Number</u>	<u>Weight %</u>	<u>Chemical name</u>
57-50-1	>= 25.0 - < 50.0%	Sucrose
13674-84-5	>= 15.0 - < 20.0%	tris(2-chloro-1-methylethyl)phosphate
78-40-0	>= 10.0 - < 15.0%	Triethyl phosphate
3033-62-3	>= 5.0 - < 7.0%	N,N,N',N'-tetramethyl-2,2'-oxybis(ethylamine)
127087-87-0	>= 5.0 - < 7.0%	4-Nonylphenol, branched, ethoxylated
2212-32-0	>= 1.0 - < 3.0%	2-((2-(dimethylamino)ethyl)methylamino)ethanol
9046-10-0	>= 1.0 - < 3.0%	alpha-(2-Aminomethylethyl)-omega-(2-aminomethylethoxy)- poly(oxy(methyl-1,2-ethanediyl))

4. First-Aid Measures

Description of first aid measures

General advice:

Remove contaminated clothing.

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If inhaled:

Keep patient calm, remove to fresh air, seek medical attention.

If on skin:

Wash thoroughly with soap and water.

If in eyes:

Wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

If swallowed:

Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms: The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.

Information on: tris(2-chloro-1-methylethyl)phosphate

Symptoms: Overexposure may cause: convulsions, depression, hypoxemia, tremors

Indication of any immediate medical attention and special treatment needed

Note to physician

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media:
water spray, dry powder, carbon dioxide, foam

Special hazards arising from the substance or mixture

Hazards during fire-fighting:
No particular hazards known.

Advice for fire-fighters

Protective equipment for fire-fighting:
Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

Further information:

Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

6. Accidental release measures

Further accidental release measures:

High risk of slipping due to leakage/spillage of product.

Personal precautions, protective equipment and emergency procedures

Use personal protective clothing.

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Environmental precautions

Do not empty into drains. Do not discharge into the subsoil/soil.

Methods and material for containment and cleaning up

Spills should be contained, solidified, and placed in suitable containers for disposal.

7. Handling and Storage

Precautions for safe handling

Ensure thorough ventilation of stores and work areas. Protect against moisture.

Protection against fire and explosion:

No special precautions necessary.

Conditions for safe storage, including any incompatibilities

Segregate from foods and animal feeds. Segregate from acids. Segregate from oxidants.

Suitable materials for containers: Carbon steel (Iron), High density polyethylene (HDPE), Low density polyethylene (LDPE), Stainless steel 1.4301 (V2)

Further information on storage conditions: Containers should be stored tightly sealed in a dry place.

Storage stability:

Storage temperature: 27 - 35 °C

8. Exposure Controls/Personal Protection

Components with occupational exposure limits

Sucrose	OSHA PEL	PEL 15 mg/m3 Total dust ; PEL 5 mg/m3 Respirable fraction ; TWA value 15 mg/m3 Total dust ; TWA value 5 mg/m3 Respirable fraction ;
	ACGIH TLV	TWA value 10 mg/m3 ;
N,N,N',N'-tetramethyl-2,2'-oxybis(ethylamine)	ACGIH TLV	STEL value 0.15 ppm ; TWA value 0.05 ppm ; Skin Designation ; The substance can be absorbed through the skin.

Advice on system design:

Provide local exhaust ventilation to control vapours/mists.

Personal protective equipment

Respiratory protection:

Wear a NIOSH-certified (or equivalent) organic vapour/particulate respirator as needed.

Hand protection:

Chemical resistant protective gloves

Eye protection:

Wear face shield or tightly fitting safety goggles (chemical goggles) if splashing hazard exists.

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Body protection:

Standard work clothes and shoes.

General safety and hygiene measures:

Avoid contact with skin. Handle in accordance with good industrial hygiene and safety practice. Wear protective clothing as necessary to prevent contact. Avoid inhalation of vapours/mists. Wash soiled clothing immediately.

9. Physical and Chemical Properties

Form:	liquid
Odour:	amine-like
Odour threshold:	No applicable information available.
Colour:	milky white
pH value:	≥ 7.0
Freezing point:	0.00 °C
Boiling point:	100.00 °C
Sublimation point:	No applicable information available.
Flash point:	> 200.00 °F (closed cup)
Flammability:	not flammable
Lower explosion limit:	For liquids not relevant for classification and labelling. The lower explosion point may be 5 - 15 °C below the flash point.
Upper explosion limit:	For liquids not relevant for classification and labelling.
Autoignition:	> 250 °C
Vapour pressure:	< 0.1 hPa (25 °C)
Density:	10.1000 lb/USg (25.00 °C)
Relative density:	No applicable information available.
Vapour density:	No applicable information available.
Partitioning coefficient n-octanol/water (log Pow):	Unspecified
Self-ignition temperature:	not self-igniting
Thermal decomposition:	No decomposition if stored and handled as prescribed/indicated.
Viscosity, dynamic:	300.000 mPa.s (25.00 °C)
Viscosity, kinematic:	No applicable information available.
Solubility in water:	slightly soluble
Solubility (quantitative):	No applicable information available.
Solubility (qualitative):	No applicable information available.
Evaporation rate:	Value can be approximated from Henry's Law Constant or vapor pressure.
Other Information:	If necessary, information on other physical and chemical parameters is indicated in this section.

10. Stability and Reactivity

Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

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Corrosion to metals:
No corrosive effect on metal.

Oxidizing properties:
Not an oxidizer.

Chemical stability

The product is stable if stored and handled as prescribed/indicated.

Possibility of hazardous reactions

No hazardous reactions if stored and handled as prescribed/indicated.

Conditions to avoid

Temperature: < 0 degrees Celsius

Incompatible materials

acids, oxidizing agents, isocyanates

Hazardous decomposition products

Decomposition products:
Hazardous decomposition products: carbon monoxide, carbon dioxide, nitrogen oxide, hydrogen cyanide

Thermal decomposition:
No decomposition if stored and handled as prescribed/indicated.

11. Toxicological information

Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

Acute Toxicity/Effects

Oral

Type of value: ATE
Value: 3,140 mg/kg

The product has not been tested. The statement has been derived from the properties of the individual components.

Inhalation

No applicable information available.

Dermal

No applicable information available.

Assessment other acute effects

Assessment of STOT single:

Based on the available information there is no specific target organ toxicity to be expected after a single exposure.

Origin of data: expert judgement

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Irritation / corrosion

Assessment of irritating effects: Corrosive! Damages skin and eyes. May cause severe damage to the eyes.

Information on: N,N,N',N'-tetramethyl-2,2'-oxybis(ethylamine)

Assessment of irritating effects: Corrosive! Damages skin and eyes.

Information on: 2-((2-(dimethylamino)ethyl)methylamino)ethanol

Assessment of irritating effects: Skin contact causes irritation. May cause severe damage to the eyes.

Information on: alpha-(2-Aminomethylethyl)-omega-(2-aminomethylethoxy)- poly(oxy(methyl-1,2-ethanediyl))

Assessment of irritating effects: Corrosive! Damages skin and eyes.

Sensitization

Assessment of sensitization: The chemical structure does not suggest a sensitizing effect. No applicable information available.

Aspiration Hazard

No aspiration hazard expected.

Chronic Toxicity/Effects

Repeated dose toxicity

Assessment of repeated dose toxicity: Repeated oral uptake of the substance did not cause substance-related effects. Repeated inhalative uptake of the substance did not cause substance-related effects. Repeated dermal uptake of the substance did not cause substance-related effects.

Genetic toxicity

Assessment of mutagenicity: The chemical structure does not suggest a specific alert for such an effect. No applicable information available.

Carcinogenicity

Assessment of carcinogenicity: The chemical structure does not suggest a specific alert for such an effect. No applicable information available.

Reproductive toxicity

Assessment of reproduction toxicity: The chemical structure does not suggest a specific alert for such an effect. No applicable information available.

Teratogenicity

Assessment of teratogenicity: The chemical structure does not suggest a specific alert for such an effect. No applicable information available.

Other Information

The product has not been tested. The statement has been derived from the properties of the individual components.

Symptoms of Exposure

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.

Medical conditions aggravated by overexposure

Data available do not indicate that there are medical conditions that are generally recognized as being aggravated by exposure to this substance/product.

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12. Ecological Information

Toxicity

Aquatic toxicity

Assessment of aquatic toxicity:

Acutely harmful for aquatic organisms. The product has not been tested. The statement has been derived from the properties of the individual components.

Toxicity to fish

Information on: *tris(2-chloro-1-methylethyl)phosphate*

LC50 (96 h) 51 mg/l, *Pimephales promelas* (Fish test acute, static)

LC50 (96 h) 56 mg/l, *Brachydanio rerio* (Fish test acute, static)

Information on: *ethyl cyanoacetate*

LC50 (96 h) 59 mg/l, *Brachydanio rerio* (OECD Guideline 203, Flow through.)

Nominal values (confirmed by concentration control analytics)

Information on: *N,N,N',N'-tetramethyl-2,2'-oxybis(ethylamine)*

LC50 (96 h) approx. 131.2 mg/l, *Brachydanio rerio* (OECD Guideline 203, semistatic)

The details of the toxic effect relate to the nominal concentration.

Information on: *alpha-(2-Aminomethylethyl)-omega-(2-aminomethylethoxy)- poly(oxy(methyl-1,2-ethanediyl))*

LC50 (96 h) > 15 mg/l, *Oncorhynchus mykiss* (OECD Guideline 203, semistatic)

The details of the toxic effect relate to the nominal concentration. Limit concentration test only (LIMIT test).

LC50 (96 h) 772.14 mg/l, *Cyprinodon variegatus* (OECD Guideline 203, static)

The details of the toxic effect relate to the nominal concentration.

Aquatic invertebrates

Information on: *tris(2-chloro-1-methylethyl)phosphate*

EC50 (48 h) 131 mg/l, *Daphnia magna* (Daphnia test acute, static)

The statement of the toxic effect relates to the analytically determined concentration.

Information on: *ethyl cyanoacetate*

EC50 (48 h) 471 mg/l, *Daphnia magna* (OECD Guideline 202, part 1, static)

The details of the toxic effect relate to the nominal concentration.

Information on: *N,N,N',N'-tetramethyl-2,2'-oxybis(ethylamine)*

EC50 (48 h) 102 mg/l, *Daphnia magna* (OECD Guideline 202, part 1, static)

The statement of the toxic effect relates to the analytically determined concentration.

Information on: *alpha-(2-Aminomethylethyl)-omega-(2-aminomethylethoxy)- poly(oxy(methyl-1,2-ethanediyl))*

EC50 (48 h) 80 mg/l, *Daphnia magna* (OECD Guideline 202, part 1, static)

The details of the toxic effect relate to the nominal concentration.

EC50 (48 h) 418.34 mg/l, *Arcatia tonsa* (Daphnia test acute, static)

The details of the toxic effect relate to the nominal concentration.

Aquatic plants

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Information on: tris(2-chloro-1-methylethyl)phosphate
EC50 (72 h) 82 mg/l (growth rate), Pseudokirchneriella subcapitata (OECD Guideline 201, static)
Nominal concentration.

Information on: ethyl cyanoacetate
EC50 (72 h) 142 mg/l (growth rate), Desmodemus subspicatus (OECD Guideline 201)
The details of the toxic effect relate to the nominal concentration.

Information on: N,N,N',N'-tetramethyl-2,2'-oxybis(ethylamine)
EC50 (72 h) 24 mg/l (growth rate), Pseudokirchneriella subcapitata (OECD Guideline 201, static)
The statement of the toxic effect relates to the analytically determined concentration.
EC10 (72 h) 5 mg/l (growth rate), Pseudokirchneriella subcapitata (OECD Guideline 201, static)
The statement of the toxic effect relates to the analytically determined concentration.
EC50 (72 h) 23 mg/l (growth rate), Selenastrum capricornutum (OECD Guideline 201, static)
The details of the toxic effect relate to the nominal concentration.
EC10 (72 h) 5.3 mg/l (growth rate), Selenastrum capricornutum (OECD Guideline 201, static)
The details of the toxic effect relate to the nominal concentration.

Information on: alpha-(2-Aminomethylethyl)-omega-(2-aminomethylethoxy)- poly(oxy(methyl-1,2-ethanediyl))
EC50 (72 h) 15 mg/l (growth rate), Pseudokirchneriella subcapitata (OECD Guideline 201, static)
The details of the toxic effect relate to the nominal concentration.
EC10 (72 h) 1.4 mg/l (growth rate), Pseudokirchneriella subcapitata (OECD Guideline 201, static)
The details of the toxic effect relate to the nominal concentration.
EC50 (72 h) 141.72 mg/l, Skeletonema costatum (ISO/DIS 10253, static)
The details of the toxic effect relate to the nominal concentration.
No observed effect concentration (72 h) 100 mg/l, Skeletonema costatum (ISO/DIS 10253, static)
The details of the toxic effect relate to the nominal concentration.

Microorganisms/Effect on activated sludge

Toxicity to microorganisms

Information on: tris(2-chloro-1-methylethyl)phosphate

Information on: ethyl cyanoacetate
Bringmann-Kuehn Test bacterium/EC10 (18 h): 510 mg/l

Information on: N,N,N',N'-tetramethyl-2,2'-oxybis(ethylamine)
OECD Guideline 209 activated sludge, industrial/EC20 (30 min): > 720 mg/l
Nominal concentration.

Information on: alpha-(2-Aminomethylethyl)-omega-(2-aminomethylethoxy)- poly(oxy(methyl-1,2-ethanediyl))
OECD Guideline 209 aerobic
activated sludge of a predominantly domestic sewage/EC20 (3 h): 380 mg/l
The details of the toxic effect relate to the nominal concentration.

Persistence and degradability

Assessment biodegradation and elimination (H₂O)
Poorly biodegradable.

Elimination information

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Poorly biodegradable.

Bioaccumulative potential

Assessment bioaccumulation potential

Does not significantly accumulate in organisms.

Mobility in soil

Assessment transport between environmental compartments

Adsorption to solid soil phase is not expected.

Additional information

Adsorbable organically-bound halogen (AOX):
This product contains no organically-bound halogen.

Other ecotoxicological advice:
The product has not been tested. Do not discharge product into the environment without control.

13. Disposal considerations

Waste disposal of substance:

Incinerate in a licensed facility. Dispose of in a licensed facility. Do not discharge substance/product into sewer system.

Container disposal:

Steel drums must be emptied and can be sent to a licensed drum reconditioner for reuse, a scrap metal dealer or an approved landfill. Do not attempt to refill or clean containers since residue is difficult to remove. Under no circumstances should empty drums be burned or cut open with gas or electric torch as toxic decomposition products may be liberated. Do not reuse empty containers.

14. Transport Information

Land transport

USDOT

Not classified as a dangerous good under transport regulations

Sea transport

IMDG

Not classified as a dangerous good under transport regulations

Air transport

IATA/ICAO

Not classified as a dangerous good under transport regulations

15. Regulatory Information

Federal Regulations

Registration status:

Chemical TSCA, US released / listed

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EPCRA 311/312 (Hazard categories): Refer to SDS section 2 for GHS hazard classes applicable for this product.

State regulations

<u>State RTK</u>	<u>CAS Number</u>	<u>Chemical name</u>
NJ	3033-62-3	N,N,N',N'-tetramethyl-2,2'-oxybis(ethylamine)
PA	57-50-1	Sucrose

Safe Drinking Water & Toxic Enforcement Act, CA Prop. 65:

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

[Other Prop 65 components may be present in the product.]

NFPA Hazard codes:

Health: 3 Fire: 1 Reactivity: 1 Special:

HMIS III rating

Health: 3 Flammability: 1 Physical hazard: 1

16. Other Information

SDS Prepared by:

BASF NA Product Regulations
SDS Prepared on: 2017/10/11

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