Safety data sheet according to 1907/2006/EC, Article 31

18 07 2021 Duinti J.

CHEMICALS, INC.

18 07 2021 n . . .

1.1 Product ide	ntifier
Trade name: <u>N</u> ,	N'-Bis(2-hydroxybenzyl)ethylenediamine, min. 98% H4 SALEN
	7-0295 e ntified uses of the substance or mixture and uses advised against eant information available.
1.3 Details of th Manufacturer/S Strem Chemical 7 Mulliken Way NEWBURYPOR USA info@strem.con	s, Inc. RT, MA 01950
Further inform	ation obtainable from: Technical Department
	telephone number:
EMERGENCY:	CHEMTREC: + 1 (800) 424-9300
EMERGENCY: During normal SECTION 2: 2.1 Classificatio	opening times: +1 (978) 499-1600 Hazards identification on of the substance or mixture
EMERGENCY: During normal SECTION 2: 2.1 Classification Classification a	opening times: +1 (978) 499-1600 Hazards identification
EMERGENCY: During normal SECTION 2: 2.1 Classification Classification a	opening times: +1 (978) 499-1600 Hazards identification on of the substance or mixture ccording to Regulation (EC) No 1272/2008 s not classified according to the CLP regulation.
EMERGENCY: During normal SECTION 2: 2.1 Classification Classification a The substance is 2.2 Label eleme Labelling accor	opening times: +1 (978) 499-1600 Hazards identification on of the substance or mixture ccording to Regulation (EC) No 1272/2008 s not classified according to the CLP regulation. nts ding to Regulation (EC) No 1272/2008 Void
EMERGENCY: During normal SECTION 2: 2.1 Classification Classification a The substance is 2.2 Label eleme Labelling accor Hazard pictogra	opening times: +1 (978) 499-1600 Hazards identification on of the substance or mixture ccording to Regulation (EC) No 1272/2008 s not classified according to the CLP regulation. nts ding to Regulation (EC) No 1272/2008 Void ums Void
EMERGENCY: During normal SECTION 2: 2.1 Classification Classification a The substance is 2.2 Label eleme Labelling accor Hazard pictogra Signal word Vo	opening times: +1 (978) 499-1600 Hazards identification on of the substance or mixture ccording to Regulation (EC) No 1272/2008 s not classified according to the CLP regulation. Ints ding to Regulation (EC) No 1272/2008 Void ums Void id
EMERGENCY: During normal SECTION 2: 2.1 Classification Classification a The substance is 2.2 Label eleme Labelling accor Hazard pictogra Signal word Vo Hazard stateme	opening times: +1 (978) 499-1600 Hazards identification on of the substance or mixture ccording to Regulation (EC) No 1272/2008 s not classified according to the CLP regulation. onts rding to Regulation (EC) No 1272/2008 Void ums Void id nts Void
EMERGENCY: During normal SECTION 2: 2.1 Classification Classification a The substance is 2.2 Label eleme Labelling accor Hazard pictogro Signal word Vo Hazard stateme Precautionary s	<i>Hazards identification</i> <i>Hazards identification</i> <i>on of the substance or mixture</i> <i>ccording to Regulation (EC) No 1272/2008</i> <i>s not classified according to the CLP regulation.</i> <i>ints</i> <i>rding to Regulation (EC) No 1272/2008</i> Void <i>tams Void</i> <i>id</i> <i>nts Void</i> <i>id</i> <i>nts Void</i> <i>id</i> <i>tatements</i>
EMERGENCY: During normal SECTION 2: 2.1 Classification Classification a The substance is 2.2 Label eleme Labelling accor Hazard pictogra Signal word Vo Hazard stateme Precautionary s P262	<i>Hazards identification</i> <i>Hazards identification</i> <i>on of the substance or mixture</i> <i>ccording to Regulation (EC) No 1272/2008</i> <i>s not classified according to the CLP regulation.</i> <i>nts</i> <i>ding to Regulation (EC) No 1272/2008</i> Void <i>tarms Void</i> <i>id</i> <i>nts Void</i> <i>id</i> <i>nts Void</i> <i>itatements</i> <i>Do not get in eyes, on skin, or on clothing.</i>
EMERGENCY: During normal SECTION 2: 2.1 Classification Classification a The substance is 2.2 Label eleme Labelling accor Hazard pictogra Signal word Vo Hazard stateme Precautionary s P262 P280	<i>Hazards identification</i> <i>Hazards identification</i> <i>on of the substance or mixture</i> <i>ccording to Regulation (EC) No 1272/2008</i> <i>s not classified according to the CLP regulation.</i> <i>ints</i> <i>rding to Regulation (EC) No 1272/2008</i> Void <i>tams Void</i> <i>id</i> <i>nts Void</i> <i>id</i> <i>nts Void</i> <i>id</i> <i>tatements</i>
EMERGENCY: During normal SECTION 2: 2.1 Classification Classification a The substance is 2.2 Label eleme Labelling accor Hazard pictogra Signal word Vo Hazard stateme Precautionary s P262 P280 P305+P351+P.	opening times: +1 (978) 499-1600 Hazards identification m of the substance or mixture ccording to Regulation (EC) No 1272/2008 s not classified according to the CLP regulation. Ints ding to Regulation (EC) No 1272/2008 Void total colspan="2">total colspan="2">total colspan="2">cording to the CLP regulation. Ints ding to Regulation (EC) No 1272/2008 Void total colspan="2">total colspan="2">cording to the CLP regulation. Ints diag to Regulation (EC) No 1272/2008 Void table total colspan="2">total colspan="2">colspan="2" colspan="2" colspan="2" colspan="2" colspan="2" colspan="2" colspan="2" colspan="2"
EMERGENCY: During normal SECTION 2: 2.1 Classification Classification a The substance is 2.2 Label eleme Labelling accor Hazard pictogra Signal word Vo Hazard stateme Precautionary s P262 P280 P305+P351+P. P304+P340	<i>Hazards identification</i> <i>Hazards identification</i> <i>m of the substance or mixture</i> <i>ccording to Regulation (EC) No 1272/2008</i> <i>s not classified according to the CLP regulation.</i> <i>nts</i> <i>ding to Regulation (EC) No 1272/2008</i> Void <i>ums Void</i> <i>id</i> <i>nts Void</i> <i>id</i> <i>tratements</i> <i>Do not get in eyes, on skin, or on clothing.</i> <i>Wear protective gloves/protective clothing/eye protection/face protection.</i> <i>338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses,</i> <i>present and easy to do. Continue rinsing.</i> <i>IF INHALED: Remove person to fresh air and keep comfortable for breathing.</i>
EMERGENCY: During normal SECTION 2: 2.1 Classification Classification a The substance is 2.2 Label eleme Labelling accor Hazard pictogra Signal word Vo Hazard stateme Precautionary s P262 P280 P305+P351+P. P304+P340 P403+P233	<i>Hazards identification</i> <i>Hazards identification</i> <i>on of the substance or mixture</i> <i>ccording to Regulation (EC) No 1272/2008</i> <i>s not classified according to the CLP regulation.</i> <i>nts</i> <i>ding to Regulation (EC) No 1272/2008</i> Void <i>tass Void</i> <i>id</i> <i>nts Void</i> <i>id</i> <i>nts Void</i> <i>itatements</i> <i>Do not get in eyes, on skin, or on clothing.</i> <i>Wear protective gloves/protective clothing/eye protection/face protection.</i> <i>338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses,</i> <i>present and easy to do. Continue rinsing.</i> <i>IF INHALED: Remove person to fresh air and keep comfortable for breathing.</i> <i>Store in a well-ventilated place. Keep container tightly closed.</i>
EMERGENCY: During normal SECTION 2: 2.1 Classification Classification a The substance is 2.2 Label eleme Labelling accor Hazard pictogra Signal word Vo Hazard stateme Precautionary s P262 P280 P305+P351+P. P304+P340	<i>Hazards identification</i> <i>Hazards identification</i> <i>m of the substance or mixture</i> <i>ccording to Regulation (EC) No 1272/2008</i> <i>s not classified according to the CLP regulation.</i> <i>nts</i> <i>ding to Regulation (EC) No 1272/2008</i> Void <i>ums Void</i> <i>id</i> <i>nts Void</i> <i>id</i> <i>tratements</i> <i>Do not get in eyes, on skin, or on clothing.</i> <i>Wear protective gloves/protective clothing/eye protection/face protection.</i> <i>338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses,</i> <i>present and easy to do. Continue rinsing.</i> <i>IF INHALED: Remove person to fresh air and keep comfortable for breathing.</i>
EMERGENCY: During normal SECTION 2: 2.1 Classification Classification a The substance is 2.2 Label eleme Labelling accor Hazard pictogra Signal word Vo Hazard stateme Precautionary s P262 P280 P305+P351+P. P304+P340 P403+P233 P501 2.3 Other hazar	opening times: +1 (978) 499-1600 Hazards identification on of the substance or mixture ccording to Regulation (EC) No 1272/2008 s not classified according to the CLP regulation. Ints ding to Regulation (EC) No 1272/2008 Void tims Void id nts Void id nts Void itatements Do not get in eyes, on skin, or on clothing. Wear protective gloves/protective clothing/eye protection/face protection. 338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, present and easy to do. Continue rinsing. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Store in a well-ventilated place. Keep container tightly closed. Dispose of contents/container in accordance with local/regional/national/internation regulations.
EMERGENCY: During normal SECTION 2: 2.1 Classification Classification a The substance is 2.2 Label eleme Labelling accor Hazard pictogra Signal word Vo Hazard stateme Precautionary s P262 P280 P305+P351+P. P304+P340 P403+P233 P501 2.3 Other hazar Results of PBT	opening times: +1 (978) 499-1600 Hazards identification on of the substance or mixture ccording to Regulation (EC) No 1272/2008 s not classified according to the CLP regulation. nts ding to Regulation (EC) No 1272/2008 Void tims Void id nts Void tatements Do not get in eyes, on skin, or on clothing. Wear protective gloves/protective clothing/eye protection/face protection. 338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, present and easy to do. Continue rinsing. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Store in a well-ventilated place. Keep container tightly closed. Dispose of contents/container in accordance with local/regional/national/internation regulations. ds and vPvB assessment
EMERGENCY: During normal SECTION 2: 2.1 Classification Classification a The substance is 2.2 Label eleme Labelling accor Hazard pictogra Signal word Vo Hazard stateme Precautionary s P262 P280 P305+P351+P. P304+P340 P403+P233 P501 2.3 Other hazar	opening times: +1 (978) 499-1600 Hazards identification on of the substance or mixture ccording to Regulation (EC) No 1272/2008 s not classified according to the CLP regulation. nts dding to Regulation (EC) No 1272/2008 Void tims Void id nts Void tatements Do not get in eyes, on skin, or on clothing. Wear protective gloves/protective clothing/eye protection/face protection. 338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, present and easy to do. Continue rinsing. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Store in a well-ventilated place. Keep container tightly closed. Dispose of contents/container in accordance with local/regional/national/internation regulations. ds and vPvB assessment cable.

· CAS No. Description 18653-98-0 N,N'-Bis(2-hydroxybenzyl)ethylenediamine, min. 98% H4 SALEN

(Contd. on page 2)

GB

Safety data sheet according to 1907/2006/EC, Article 31

Printing date 18.07.2021

Revision: 18.07.2021

Trade name: N,N'-Bis(2-hydroxybenzyl)ethylenediamine, min. 98% H4 SALEN

(Contd. of page 1)

SECTION 4: First aid measures

- 4.1 Description of first aid measures
- · General information: No special measures required.
- · After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact: Immediately rinse with water.
- After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
- After swallowing: If symptoms persist consult doctor.
- · 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.
- \cdot 4.3 Indication of any immediate medical attention and special treatment needed
- No further relevant information available.

SECTION 5: Firefighting measures

- · 5.1 Extinguishing media
- Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.
- · 5.2 Special hazards arising from the substance or mixture No further relevant information available.
- · 5.3 Advice for firefighters
- · Protective equipment: No special measures required.

SECTION 6: Accidental release measures

- · 6.1 Personal precautions, protective equipment and emergency procedures Not required.
- · 6.2 Environmental precautions: No special measures required.
- 6.3 Methods and material for containment and cleaning up: Dispose contaminated material as waste according to item 13.
- · 6.4 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.

SECTION 7: Handling and storage

- 7.1 Precautions for safe handling No special measures required.
- · Information about fire and explosion protection: No special measures required.
- · 7.2 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: None.
- · 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

• Additional information about design of technical facilities: No further data; see item 7.

· 8.1 Control parameters

• Ingredients with limit values that require monitoring at the workplace: Not required.

• Additional information: The lists valid during the making were used as basis.

(Contd. on page 3)

GB

Safety data sheet according to 1907/2006/EC, Article 31

Printing date 18.07.2021

Revision: 18.07.2021

Trade name: N,N'-Bis(2-hydroxybenzyl)ethylenediamine, min. 98% H4 SALEN

	(Contd. of page 2)
 8.2 Exposure controls Personal protective equipment: General protective and hygienic measure The usual precautionary measures are to Respiratory protection: Not required. Protection of hands: 	
Protective gloves	
Due to missing tests no recommendation chemical mixture. Selection of the glove material on conside Material of gloves The selection of the suitable gloves does varies from manufacturer to manufacture	e and resistant to the product/ the substance/ the preparation. to the glove material can be given for the product/ the preparation/ the eration of the penetration times, rates of diffusion and the degradation not only depend on the material, but also on further marks of quality and r.
 Penetration time of glove material The exact break through time has to be observed. Eye protection: Safety glasses 	found out by the manufacturer of the protective gloves and has to be
9.1 Information on basic physical and cl General Information Appearance:	hemical properties
Form: Colour: · Odour: · Odour threshold:	Crystalline Whitish Odourless Not determined.
· pH-value:	Not applicable.
• Change in condition Melting point/freezing point: Initial boiling point and boiling range.	118-120 °C Undetermined.
· Flash point:	Not applicable.
· Flammability (solid, gas):	Product is not flammable.
· Ignition temperature:	
Decomposition temperature:	Not determined.
· Auto-ignition temperature:	Not determined.
· Explosive properties:	Product does not present an explosion hazard.
· Explosion limits: Lower: Upper:	Not determined. Not determined.
· Vapour pressure:	Not applicable.
· Density: · Relative density · Vapour density · Evaporation rate	Not determined. Not determined. Not applicable. Not applicable.
	(Contd. on page 4)



CHEMICALS, INC

Safety data sheet according to 1907/2006/EC, Article 31

Printing date 18.07.2021

Revision: 18.07.2021

Trade name: N,N'-Bis(2-hydroxybenzyl)ethylenediamine, min. 98% H4 SALEN

		(Contd. of page 2
· Solubility in / Miscibility with		
water:	Insoluble.	
· Partition coefficient: n-octanol/water:	Not determined.	
· Viscosity:		
Dynamic:	Not applicable.	
Kinematic:	Not applicable.	
· Solvent content:		
Organic solvents:	0.0 %	
VÕC (EC)	0.00 %	
Solids content:	100.0 %	
• 9.2 Other information	No further relevant information available.	

SECTION 10: Stability and reactivity

- · 10.1 Reactivity No further relevant information available.
- · 10.2 Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- \cdot 10.3 Possibility of hazardous reactions No dangerous reactions known.
- \cdot 10.4 Conditions to avoid No further relevant information available.
- 10.5 Incompatible materials: No further relevant information available.
- · 10.6 Hazardous decomposition products: No dangerous decomposition products known.

SECTION 11: Toxicological information

· 11.1 Information on toxicological effects

- Acute toxicity Based on available data, the classification criteria are not met.
- · Primary irritant effect:
- · Skin corrosion/irritation Based on available data, the classification criteria are not met.
- Serious eye damage/irritation Based on available data, the classification criteria are not met.
- · Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- · CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
- Germ cell mutagenicity Based on available data, the classification criteria are not met.
- \cdot Carcinogenicity Based on available data, the classification criteria are not met.
- *Reproductive toxicity* Based on available data, the classification criteria are not met.
- STOT-single exposure Based on available data, the classification criteria are not met.
- $\cdot \textbf{STOT-repeated exposure} Based on available data, the classification criteria are not met.$
- · Aspiration hazard Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- · 12.1 Toxicity
- Aquatic toxicity: No further relevant information available.
- 12.2 Persistence and degradability No further relevant information available.
- 12.3 Bioaccumulative potential No further relevant information available.
- 12.4 Mobility in soil No further relevant information available.
- \cdot Additional ecological information:
- General notes: Not known to be hazardous to water.

(Contd. on page 5)

GB

CHEMICALS, INC.

Safety data sheet according to 1907/2006/EC, Article 31

Printing date 18.07.2021

Revision: 18.07.2021

Trade name: N,N'-Bis(2-hydroxybenzyl)ethylenediamine, min. 98% H4 SALEN

(Contd. of page 4)

· 12.5 Results of PBT and vPvB assessment

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

· 12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

- · 13.1 Waste treatment methods
- Recommendation Disposal must be made according to official regulations.
- Uncleaned packaging:
- · Recommendation: Disposal must be made according to official regulations.

SECTION 14: Transport information	uon	
14.1 UN-Number ADR, ADN, IMDG, IATA	not regulated	
14.2 UN proper shipping name ADR, ADN, IMDG, IATA	not regulated	
14.3 Transport hazard class(es)		
ADR, ADN, IMDG, IATA Class	not regulated	
14.4 Packing group ADR, IMDG, IATA	not regulated	
14.5 Environmental hazards:		
Marine pollutant:	No	
14.6 Special precautions for user	Not applicable.	
14.7 Transport in bulk according to Ann	ex II of	
Marpol and the IBC Code	Not applicable.	
UN "Model Regulation":	not regulated	

SECTION 15: Regulatory information

· 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

· Directive 2012/18/EU

- · Named dangerous substances ANNEX I Substance is not listed.
- 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 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: Technical Department.

· Contact: Technical Director

(Contd. on page 6)

GB

CHEMICALS, INC.

Safety data sheet according to 1907/2006/EC, Article 31

Printing date 18.07.2021

Revision: 18.07.2021

Trade name: N,N'-Bis(2-hydroxybenzyl)ethylenediamine, min. 98% H4 SALEN

· Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU) PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

(Contd. of page 5)

GE