



## Safety Data Sheet

prepared to UN GHS Revision 3

### 1. Identification of the Substance/Mixture and the Company/Undertaking

<b>1.1 Product Identifier</b>	HB4 ACT	<b>Revision Date:</b>	29/11/2022
<b>Product Name:</b>	Stonkote HB4 Activator	<b>Supersedes Date:</b>	New SDS
<b>1.2 Relevant identified uses of the substance or mixture and uses advised against</b>	Hardener for 2 components coatings - Industrial use. Advised against: others than recommended		
<b>1.3 Details of the supplier of the safety data sheet</b>			
<b>Importer:</b>	Importer		
<b>Manufacturer:</b>	StonCor Africa (Pty.) Ltd. 8 Cresset Road Midrand Industrial Park, Chloorkop P.O. Box 2205 2001, Johannesburg South Africa		
	Regulatory / Technical Information: +27 11 254 5500		
<b>Datasheet Produced by:</b>	Visagie, Kevin - ehs@stoncor.com		
<b>1.4 Emergency telephone number:</b>	CHEMTREC 1-800-424-9300 (Inside US) CHEMTREC +1 703 5273887 (Outside US) Giftinformasjonen: +47 22 59 13 00		

### 2. Hazard Identification

#### 2.1 Classification of the substance or mixture

Acute Toxicity, Inhalation, category 4  
 Acute Toxicity, Oral, category 4  
 Hazardous to the aquatic environment, Chronic, category 3  
 STOT, repeated exposure, category 2  
 Skin Corrosion, category 1  
 Skin Sensitizer, category 1

## 2.2 Label elements

### Symbol(s) of Product



### Signal Word

Danger

### Named Chemicals on Label

Benzyl alcohol, 4,4'-methylenebicyclohexanamine, 3-Aminomethyl-3,5,5-trimethylcyclohexylamine, Reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight <= 700)

### HAZARD STATEMENTS

Acute Toxicity, Oral, category 4	H302	Harmful if swallowed.
Skin Corrosion, category 1	H314-1	Causes severe skin burns and eye damage.
Skin Sensitizer, category 1	H317	May cause an allergic skin reaction.
Acute Toxicity, Inhalation, category 4	H332	Harmful if inhaled.
STOT, repeated exposure, category 2	H373	May cause damage to organs through prolonged or repeated exposure.
Hazardous to the aquatic environment, Chronic, category 3	H412	Harmful to aquatic life with long lasting effects.

### PRECAUTION PHRASES

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P301+330+331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P302+352	IF ON SKIN: Wash with plenty of soap and water.
P304+340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+351+338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.
P314	Get medical advice/attention if you feel unwell.
P333+313	If skin irritation or rash occurs: Get medical advice/attention.
P363	Wash contaminated clothing before reuse.

## 2.3 Other hazards

No Information

### Results of PBT and vPvB assessment:

The product does not meet the criteria for PBT/VPvB in accordance with Annex XIII.

## 3. Composition/Information On Ingredients

### 3.2 Mixtures

#### Hazardous ingredients

<u>Name According to EEC</u>	<u>EINEC No.</u>	<u>CAS-No.</u>	<u>%</u>	<u>Classifications</u>
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Benzyl alcohol	202-859-9	100-51-6	25 - <50	H302-312-319-332	Acute Tox. 4 Dermal, Acute Tox. 4 Inhalation, Acute Tox. 4 Oral, Eye Irrit. 2
3-Aminomethyl-3,5,5-trimethylcyclohexylamine	220-666-8	2855-13-2	25 - <50	H302-314-317	Acute Tox. 4 Oral, Skin Corr. 1B, Skin Sens. 1A
4,4'-methylenebicyclohexylamine	217-168-8	1761-71-3	10 - <25	H302-314-317-373-411	Acute Tox. 4 Oral, Aquatic Chronic 2, Skin Corr. 1, Skin Sens. 1, STOT RE 2
Reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight <= 700)	500-033-5	25068-38-6	2.5 - <10	H315-317-319-411	Aquatic Chronic 2, Eye Irrit. 2, Skin Irrit. 2, Skin Sens. 1

<u>CAS-No.</u>	<u>M-Factors</u>
100-51-6	0
2855-13-2	0
1761-71-3	0
25068-38-6	0

**Additional Information:** The text for GHS Hazard Statements shown above (if any) is given in Section 16.

## 4. First-aid Measures

### 4.1 Description of First Aid Measures

**GENERAL NOTES:** When symptoms persist or in all cases of doubt seek medical advice.

**AFTER INHALATION:** Move to fresh air. Consult a physician after significant exposure.

**AFTER SKIN CONTACT:** Use a mild soap if available. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

**AFTER EYE CONTACT:** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses.

**AFTER INGESTION:** Gently wipe or rinse the inside of the mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person.

### Self protection of the first aider:

No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

### 4.2 Most important symptoms and effects, both acute and delayed

No Information

### 4.3 Indication of any immediate medical attention and special treatment needed

Immediate medical attention is required. No information available on clinical testing and medical monitoring. Specific toxicological information on substances, if available, can be found in section 11.

## 5. Fire-fighting Measures

### 5.1 Extinguishing Media:

Carbon Dioxide, Dry Chemical, Foam

**FOR SAFETY REASONS NOT TO BE USED:** Alcohol, Alcohol based solutions, any other media not listed above.

### 5.2 Special hazards arising from the substance or mixture

No Information

**5.3 Advice for firefighters**

In the event of fire, wear self-contained breathing apparatus. Hazardous decomposition products formed under fire conditions. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**6. Accidental Release Measures****6.1 Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation. Use personal protective equipment.

**6.2 Environmental precautions**

Do not allow material to contaminate ground water system. Prevent product from entering drains.

**6.3 Methods and material for containment and cleaning up**

Prevent further leakage or spillage if safe to do so. Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

**6.4 Reference to other sections**

Please refer to disposal requirements or country specific disposal requirements for this material. See Section 8 and 13 for further information.

**7. Handling and Storage****7.1 Precautions for safe handling**

**INSTRUCTIONS FOR SAFE HANDLING:** Use only in area provided with appropriate exhaust ventilation. Wear personal protective equipment. Do not breathe vapours or spray mist.

**PROTECTION AND HYGIENE MEASURES:** Wash hands before breaks and at the end of workday. When using, do not eat, drink or smoke.

**7.2 Conditions for safe storage, including any incompatibilities**

**CONDITIONS TO AVOID:** Direct sources of heat.

**STORAGE CONDITIONS:** Store in original container. Keep locked up or in an area accessible only to qualified or authorised persons. Store in a dry, well ventilated place away from sources of heat, ignition and direct sunlight.

**7.3 Specific end use(s)**

No specific advice for end use available.

**8. Exposure Controls/Personal Protection****8.1 Control parameters****Ingredients with Occupational Exposure Limits (EU)**

<u>Name</u>	<u>CAS-No.</u>	<u>LTEL ppm</u>	<u>STEL ppm</u>	<u>STEL mg/m3</u>	<u>LTEL mg/m3</u>
Benzyl alcohol	100-51-6				
3-Aminomethyl-3,5,5-trimethylcyclohexylamine	2855-13-2				
4,4'-methylenebicyclohexylamine	1761-71-3				
Reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight <= 700)	25068-38-6				

<u>Name</u>	<u>CAS-No.</u>	<u>OEL Note</u>
Benzyl alcohol	100-51-6	

3-Aminomethyl-3,5,5-trimethylcyclohexylamine	2855-13-2
4,4'-methylenebicyclohexylamine	1761-71-3
Reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight <= 700)	25068-38-6

**FURTHER INFORMATION:** Refer to the regulatory exposure limits for the workforce enforced in each country.

## 8.2 Exposure controls

### Personal Protection

**RESPIRATORY PROTECTION:** Respirator with filter for organic vapor.

**EYE PROTECTION:** Tightly fitting safety goggles.

**HAND PROTECTION:** Impervious gloves. Long sleeved clothing. Remove and wash contaminated clothing before re-use.

**OTHER PROTECTIVE EQUIPMENT:** No Information

**ENGINEERING CONTROLS:** Avoid contact with skin, eyes and clothing. Ensure adequate ventilation, especially in confined areas.

## 9. Physical and Chemical Properties

### 9.1 Information on basic physical and chemical properties

Appearance:	Clear
Physical State	Liquid
Odor	Amine
Odor threshold	Not determined
pH	Alkaline
Melting point / freezing point (°C)	Not determined
Boiling point/range (°C)	130 - N.D.
Flash Point, (°C)	105
Evaporation rate	Not determined
Flammability (solid, gas)	Non Flammable Liquid
Upper/lower flammability or explosive limits	1.1 - 13
Vapour Pressure	Not determined
Vapour density	Not determined
Relative density	0.993
Solubility in / Miscibility with water	Insoluble
Partition coefficient: n-octanol/water	Not determined
Auto-ignition temperature (°C)	Not determined
Decomposition temperature (°C)	Not determined
Viscosity	300 cps
Explosive properties	Not determined
Oxidising properties	Not determined

### 9.2 Other information

VOC Content g/l:	27
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Calculated grams of VOC per liter of coating product as applied.

Specific Gravity (g/cm<sup>3</sup>)

1.012

## 10. Stability and Reactivity

### 10.1 Reactivity

No reactivity hazards known under normal storage and use conditions.

### 10.2 Chemical stability

Stable under normal conditions.

### 10.3 Possibility of hazardous reactions

Hazardous polymerisation may occur.

### 10.4 Conditions to avoid

Direct sources of heat.

### 10.5 Incompatible materials

Strong oxidizing agents.

### 10.6 Hazardous decomposition products

Carbon dioxide (CO<sub>2</sub>), carbon monoxide (CO), oxides of nitrogen (NO<sub>x</sub>), dense black smoke.

## 11. Toxicological Information

### 11.1 Information on toxicological effects

#### Acute Toxicity:

Oral LD50: No information

Inhalation LC50: No information

Irritation: No information available.

Corrosivity: No information available.

Sensitization: No information available.

Repeated dose toxicity: No information available.

Carcinogenicity: No information available.

Mutagenicity: No information available.

Toxicity for reproduction: No information available.

STOT-single exposure: No information available.

STOT-repeated exposure: No information available.

Aspiration hazard: No information available.

If no information is available above under Acute Toxicity then the acute effects of this product have not been tested.  
Data on individual components are tabulated below:

<u>CAS-No.</u>	<u>Chemical Name</u>	<u>Oral LD50</u>	<u>Dermal LD50</u>	<u>Vapor LC50</u>	<u>Gas LC50</u>	<u>Dust/Mist LC50</u>
100-51-6	Benzyl alcohol	1230 mg/kg, rat	2000 mg/kg, rabbit	1000 ppm, rat	0.000	0.000

2855-13-2	3-Aminomethyl-3,5,5-trimethylcyclohexylamine	500 mg/kg oral		0.000	0.000
1761-71-3	4,4'-methylenebicyclohexylamine	1200 mg/kg oral, rat	2110 mg/kg, rat	0.000	0.000
25068-38-6	Reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight <= 700)	>2000 mg/kg, rat, oral	>2000 mg/kg, rat	0.000	0.000

**Additional Information:**

No Information

## 12. Ecological Information

**12.1 Toxicity:**

EC50 48hr (Daphnia):	No information
IC50 72hr (Algae):	No information
LC50 96hr (fish):	No information

**12.2 Persistence and degradability:** No information**12.3 Bioaccumulative potential:** No information**12.4 Mobility in soil:** No information**12.5 Results of PBT and vPvB assessment:** The product does not meet the criteria for PBT/VPvB in accordance with Annex XIII.**12.6 Other adverse effects:** No information

<u>CAS-No.</u>	<u>Chemical Name</u>	<u>EC50 48hr</u>	<u>IC50 72hr</u>	<u>LC50 96hr</u>
100-51-6	Benzyl alcohol	230 mg/l	700 mg/l	460 mg/l
2855-13-2	3-Aminomethyl-3,5,5-trimethylcyclohexylamine	No information	No information	
1761-71-3	4,4'-methylenebicyclohexylamine	No information	No information	
25068-38-6	Reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight <= 700)	No information	No information	

## 13. Disposal Considerations

**13.1 WASTE TREATMENT METHODS:** If recycling is not practicable, dispose of in compliance with local regulations. Empty containers should be taken to an approved waste handling site for recycling or disposal.

## 14. Transport Information

14.1	UN number	UN 3267
14.2	UN proper shipping name	Corrosive Liquid, basic, N.O.S.
	Technical name	Isophoronediamine Solution
14.3	Transport hazard class(es)	8
	Subsidiary shipping hazard	Not applicable
14.4	Packing group	PG III
14.5	Environmental hazards	Not applicable
14.6	Special precautions for user	Not applicable
	EmS-No.:	Not applicable
14.7	Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code	Not applicable

## 15. Regulatory Information

### 15.1 Safety, health and environmental regulations/legislation for the substance or mixture:

#### National Regulations:

Denmark Product Registration Number:	Not available
Danish MAL Code:	Not available
Danish MAL Code - Mixture:	Not available
Sweden Product Registration Number:	Not available
Norway Product Registration Number:	Not available
WGK Class:	Not available

### 15.2 Chemical Safety Assessment:

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

## 16. Other Information

**Text for GHS Hazard Statements shown in Section 3 describing each ingredient:**

H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.

**Reasons for revision**

No Information

**List of References:**

This Safety Data Sheet was compiled with data and information from the following sources:

- The Ariel Regulatory Database provided by the 3E Corporation in Copenhagen, Denmark.
- Joint Research Centre in Ispra, Italy.
- Regulation (EC) 1272/2008 with subsequent amendments.
- Regulation (EC) 1272/2006 with subsequent amendments.
- Commission Regulation (EU) 2020/878
- EU Council Decision 2000/532/EC and its Annex entitled "List of Wastes"
- Safety Data Sheet from raw material supplier
- The classification of the product is based on the calculation methods set out in Annex I and Annex II of the CLP Reg. 1272/2008 on the exact composition of the formula

**Acronym & Abbreviation Key:**

CLP	Classification, Labeling & Packaging Regulation
EC	European Commission
EU	European Union
US	United States
CAS	Chemical Abstract Service
EINECS	European Inventory of Existing Chemical Substances
REACH	Registration, Evaluation, Authorization of Chemicals Regulation
GHS	Globally Harmonized System of Classification and Labeling of Chemicals
LTEL	Long term exposure limit
STEL	Short term exposure limit
OEL	Occupational exposure limit
ppm	Parts per million
mg/m <sup>3</sup>	Milligrams per cubic meter
TLV	Threshold Limit Value
ACGIH	American Conference of Governmental Industrial Hygienists
OSHA	Occupational Safety & Health Administration
PEL	Permissible Exposure Limits
VOC	Volatile organic compounds
g/l	Grams per liter
mg/kg	Milligrams per kilogram
N/A	Not applicable
LD50	Lethal dose at 50%
LC50	Lethal concentration at 50%
EC50	Half maximal effective concentration
IC50	Half maximal inhibitory concentration
PBT	Persistent bioaccumulative toxic chemical
vPvB	Very persistent and very bioaccumulative
EEC	European Economic Community
ADR	International Transport of Dangerous Goods by Road

RID International Transport of Dangerous Goods by Rail  
UN United Nations  
IMDG International Maritime Dangerous Goods Code  
IATA International Air Transport Association  
MARPOL International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978  
IBC International Bulk Container  
RTI Respiratory Tract Irritation  
NE Narcotic Effects  
IMO International Maritime Organization  
Note P: The classification as a carcinogen or mutagen need not apply; the substance contains less than 0,1 % w/w benzene  
Note 10: The classification as a carcinogen by inhalation applies only to mixtures in powder form containing 1 % or more of titanium dioxide which is in the form of or incorporated in particles with aerodynamic diameter  $\leq 10 \mu\text{m}$ .

For further information, please contact: Technical Services Department

The information on this sheet corresponds to our present knowledge. It is not a specification and it does not guarantee specific properties. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage, and use of the product. It is not applicable to unusual or non-standard uses of the product or where instructions and recommendations are not followed.