



Safety Data Sheet

prepared to UN GHS Revision 3

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

| | | | |
|--|---|-------------------------|------------|
| 1.1 Product Identifier | 618LV ACT | Revision Date: | 14/08/2023 |
| Product Name: | Dural 618LV Activator Low Resin Epoxy Adhesive | Supersedes Date: | 07/05/2018 |
| 1.2 Relevant identified uses of the substance or mixture and uses advised against | Hardener for 2 components coatings - Industrial use. Advised against: others than recommended | | |
| 1.3 Details of the supplier of the safety data sheet | | | |
| Importer: | Importer | | |
| Manufacturer: | 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 | | |
| Datasheet Produced by: | Chettiar, Serisha - ehs@stoncor.com | | |
| 1.4 Emergency telephone number: | 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

Hazardous to the aquatic environment, Chronic, category 3
Reproductive Toxicity, 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

4-tert-Butylphenol, Tetraethylenepentamine, benzene-1, 3-dimethanamine, 01,5-pentanediamine, 2-methyl-

HAZARD STATEMENTS

| | | |
|---|--------|--|
| Skin Corrosion, category 1 | H314-1 | Causes severe skin burns and eye damage. |
| Skin Sensitizer, category 1 | H317 | May cause an allergic skin reaction. |
| Reproductive Toxicity, category 2 | H361 | Suspected of damaging fertility or the unborn child. |
| 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. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| P284 | Wear respiratory 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. |
| P308+313 | IF exposed or concerned: Get medical advice/attention. |
| 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> | |
|------------------------------|------------------|----------------|-----------|--------------------------|---|
| 4-tert-Butylphenol | 202-679-0 | 98-54-4 | 10 - <25 | H315-318-335-361-4 11 | Aquatic Chronic 2, Eye Dam. 1, Repr. 2, Skin Irrit. 2, STOT SE 3 RTI |
| benzene-1, 3-dimethanamine | 216-032-5 | 1477-55-0 | 2.5 - <10 | H302-314-317-331-4 12 | Acute Tox. 3 Inhalation, Acute Tox. 4 Oral, Aquatic Chronic 3, Skin Corr. 1, Skin Sens. 1 |

| | | | | | |
|--------------------------------|-----------|------------|------------|------------------|--|
| 01,5-pentanediamine, 2-methyl- | 239-556-6 | 15520-10-2 | 2.5 - <10 | H302-314-332 | Acute Tox. 4 Inhalation, Acute Tox. 4 Oral, Skin Corr. 1 |
| Tetraethylenepentamine | 203-986-2 | 112-57-2 | 1.0 - <2.5 | H302-312-314-317 | Acute Tox. 4 Dermal, Acute Tox. 4 Oral, Skin Corr. 1, Skin Sens. 1 |

| <u>CAS-No.</u> | <u>M-Factors</u> |
|----------------|------------------|
| 98-54-4 | 0 |
| 1477-55-0 | 0 |
| 15520-10-2 | 0 |
| 112-57-2 | 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. If skin irritation persists, call a physician.

AFTER EYE CONTACT: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses. If eye irritation persists, consult a specialist.

AFTER INGESTION: Gently wipe or rinse the inside of the mouth with water. Give small amounts of water to drink. 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

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. High volume water jet. 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. Contains epoxy constituents. See information supplied by the manufacturer.

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. May cause long-term adverse effects in the aquatic environment.

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.

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: No Information

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> |
|--------------------------------|----------------|-----------------|-----------------|-------------------|-------------------|
| 4-tert-Butylphenol | 98-54-4 | | | | |
| benzene-1, 3-dimethanamine | 1477-55-0 | | | | |
| 01,5-pentanediamine, 2-methyl- | 15520-10-2 | | | | |
| Tetraethylenepentamine | 112-57-2 | | | | |

| <u>Name</u> | <u>CAS-No.</u> | <u>OEL Note</u> |
|--------------------------------|----------------|-----------------|
| 4-tert-Butylphenol | 98-54-4 | |
| benzene-1, 3-dimethanamine | 1477-55-0 | |
| 01,5-pentanediamine, 2-methyl- | 15520-10-2 | |
| Tetraethylenepentamine | 112-57-2 | |

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 a vapor filter.

EYE PROTECTION: Safety glasses.

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 | >8 |
| Melting point / freezing point (°C) | Not determined |
| Boiling point/range (°C) | 180 - 205 |
| Flash Point, (°C) | 83 |
| Evaporation rate | Not determined |
| Flammability (solid, gas) | Liquid |
| Upper/lower flammability or explosive limits | Not determined |
| Vapour Pressure | Not determined |
| Vapour density | Not determined |
| Relative density | 0.984 |
| Solubility in / Miscibility with water | Partially soluble |
| Partition coefficient: n-octanol/water | Not determined |
| Auto-ignition temperature (°C) | Not determined |
| Decomposition temperature (°C) | Not determined |
| Viscosity | 500 cps |
| Explosive properties | Not determined |
| Oxidising properties | Not determined |

9.2 Other information

| | |
|--|--------------------|
| VOC Content g/l: | Refer to Base MSDS |
| Calculated grams of VOC per liter of coating product as applied. | |
| Specific Gravity (g/cm ³) | 0.984 |

10. Stability and Reactivity

10.1 Reactivity

No reactivity hazards known under normal storage and use conditions.

10.2 Chemical stability

No decomposition if stored and applied as directed. Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous polymerisation does not occur.

10.4 Conditions to avoid

No Information

10.5 Incompatible materials

Strong oxidizing agents. Acids and bases. Amines.

10.6 Hazardous decomposition products

Thermal decomposition can lead to release of irritating gases and vapours. Alcohols. Exothermic reaction. Carbon dioxide (CO₂), carbon monoxide (CO), oxides of nitrogen (NO_x), 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> |
|----------------|----------------------------|------------------|--------------------|-------------------|-----------------|-----------------------|
| 98-54-4 | 4-tert-Butylphenol | >2000 mg/kg | 5600 mg/kg | | 0.000 | 0.000 |
| 1477-55-0 | benzene-1, 3-dimethanamine | 1514 mg/kg, oral | | | 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> |
|----------------|--------------------------------|------------------|------------------|-------------------|
| 98-54-4 | 4-tert-Butylphenol | 3.4 to 4.5 mg/l | 2.4 mg/l | 4.71 to 5.62 mg/l |
| 1477-55-0 | benzene-1, 3-dimethanamine | No information | No information | |
| 15520-10-2 | 01,5-pentanediamine, 2-methyl- | No information | No information | |
| 112-57-2 | Tetraethylenepentamine | 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 2735 |
| 14.2 UN proper shipping name | Amines, liquid, corrosive, n.o.s. |
| Technical name | Not applicable |
| 14.3 Transport hazard class(es) | 8 |
| Subsidiary shipping hazard | Not applicable |
| 14.4 Packing group | 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. |
| H318 | Causes serious eye damage. |
| H331 | Toxic if inhaled. |
| H332 | Harmful if inhaled. |
| H335 | May cause respiratory irritation. |
| H361 | Suspected of damaging fertility or the unborn child. |
| H411 | Toxic to aquatic life with long lasting effects. |
| H412 | Harmful to aquatic life with long lasting effects. |

Reasons for revision

Composition Information Changed

Substance and/or Product Properties Changed in Section(s):

- 01 - Identification
- 09 - Physical and Chemical Properties
- 11 - Toxicological Information
- 14 - Transportation Information
- 15 - Regulatory Information

Revision Statement(s) Changed

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 declared in sec. 2.2 is based on the calculation methods set out in Annex I and Annex II of the CLP Reg. 1272/2008 on the 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 ³ | 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.

