



Safety Data Sheet

prepared to UN GHS Revision 3

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

| | | | | |
|-----|---|---|------------------|------------|
| 1.1 | Product Identifier | 644-0013 | Revision Date: | 18/08/2014 |
| | Product Name: | Thermaline 4631 Aluminium | Supersedes Date: | New SDS |
| 1.2 | Relevant identified uses of the substance or mixture and uses advised against | Monocomponent industrial coating - Industrial use. | | |
| 1.3 | Details of the supplier of the safety data sheet | | | |
| | Importer: | None | | |
| | 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: | Maritz, Rory - ehs@stoncor.com | | |
| 1.4 | Emergency telephone number: | CHEMTREC 1-800-424-9300 (Inside US) CHEMTREC +1 703 5273887 (Outside US) | | |

2 Hazard Identification

2.1 Classification of the substance or mixture

Carcinogenicity, category 1A
Flammable Liquid, category 2
STOT, repeated exposure, category 1
STOT, single exposure, category 1
Skin Irritation, category 2

2.2 Label elements

Symbol(s) of Product



Signal Word

Danger

Named Chemicals on Label

quartz (silicon dioxide)

HAZARD STATEMENTS

| | | |
|-------------------------------------|---------|---|
| Carcinogenicity, category 1A | H350-1A | May cause cancer. |
| Flammable Liquid, category 2 | H225 | Highly flammable liquid and vapour. |
| STOT, repeated exposure, category 1 | H372 | Causes damage to organs through prolonged or repeated exposure. |
| STOT, single exposure, category 1 | H370 | Causes damage to organs. |
| Skin Irritation, category 2 | H315 | Causes skin irritation. |

PRECAUTION PHRASES

| | |
|-----------|---|
| P201 | Obtain special instructions before use. |
| P202 | Do not handle until all safety precautions have been read and understood. |
| P210 | Keep away from heat/sparks/open flames/hot surfaces. -No smoking. |
| P235 | Keep cool. |
| P260 | Do not breathe dust/fume/gas/mist/vapours/spray. |
| P264 | Wash hands thoroughly after handling. |
| P281 | Use personal protective equipment as required. |
| P307+P311 | IF exposed, call a POISON CENTER or doctor/physician. |
| P308+P313 | IF exposed or concerned: Get medical advice/attention |
| P314 | Get medical advice/attention if you feel unwell. |
| P332+P313 | If skin irritation occurs: Get medical advice/attention. |
| P403+233 | Store in a well-ventilated place. Keep container tightly closed. |

2.3 Other hazards

Not applicable

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>CAS-No.</u> | <u>Chemical Name</u> | <u>%</u> |
|----------------|-------------------------------|----------|
| 1330-20-7 | xylene | 25-50 |
| 7429-90-5 | aluminium powder (stabilized) | 10-25 |
| 14808-60-7 | quartz (silicon dioxide) | 10-25 |
| 100-41-4 | ethylbenzene | 2.5-10 |
| 108-88-3 | toluene | 0.1-1.0 |
| 78-83-1 | 2-methylpropan-1-ol | <0.1 |

| <u>CAS-No.</u> | <u>GHS Symbols</u> | <u>GHS Hazard Statements</u> | <u>M-Factors</u> |
|----------------|---------------------|------------------------------|------------------|
| 1330-20-7 | GHS02, GHS07 | H226-312-315-332 | 0 |
| 7429-90-5 | GHS02 | H261 | 0 |
| 14808-60-7 | GHS08 | H350-370-372 | 0 |
| 100-41-4 | GHS02, GHS07 | H225-332 | 0 |
| 108-88-3 | GHS02, GHS07, GHS08 | H225-315-336-361-373 | 0 |
| 78-83-1 | GHS02, GHS05, GHS07 | H226-315-318-335-336 | 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:** No Information**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.**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

Flash back possible over considerable distance. In the event of fire, wear self-contained breathing apparatus. High volume water jet. 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. Remove all sources of ignition.

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 13 for further information.

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

INSTRUCTIONS FOR SAFE HANDLING: Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Vapours may form explosive mixtures with air. Prevent the creation of flammable or explosive concentrations of vapour in air and avoid vapour concentration higher than the occupational exposure limits. Electrical equipment should be protected to the appropriate standard. Preparation may charge electrostatically: always use earthing leads when transferring from one container to another. Use only in area provided with appropriate exhaust ventilation. To avoid ignition of vapours by static electricity discharge, all metal parts of the equipment must be grounded. Wear personal protective equipment. Do not breathe vapours or spray mist. Use only explosion-proof equipment. Keep away from sources of ignition - No smoking.

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)

| Name | % | LTEL ppm | STEL ppm | STEL mg/m ³ | LTEL mg/m ³ | OEL Note |
|-------------------------------|---------|----------|----------|------------------------|------------------------|----------|
| xylene | 25-50 | 50 | 100 | 442 | 221 | SK |
| aluminium powder (stabilized) | 10-25 | | | | | |
| quartz (silicon dioxide) | 10-25 | | | | | |
| ethylbenzene | 2.5-10 | 100 | 200 | 884 | 442 | SKIN |
| toluene | 0.1-1.0 | 50 | 100 | 384 | 192 | |
| 2-methylpropan-1-ol | <0.1 | | | | | |

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: Tightly fitting safety goggles.

HAND PROTECTION: Rubber or plastic gloves. Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact). Long sleeved clothing. Remove and wash contaminated clothing before re-use. Rubber or plastic apron.

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: | Silver Coloured |
| Physical State | Liquid |
| Odor | Aromatic |
| Odor threshold | Not determined |
| pH | Solvent |
| Melting point / freezing point (°C) | Not determined |
| Boiling point/range (°C) | 106 - 150 |
| Flash Point, (°C) | 21 |
| Evaporation rate | Not determined |
| Flammability (solid, gas) | Flammable Liquid |
| Upper/lower flammability or explosive limits | 0.7 - 12.3 |
| Vapour Pressure | Not determined |
| Vapour density | Not determined |
| Relative density | 1.12 - 1.15 g/l |
| Solubility in / Miscibility with water | Solvent |
| Partition coefficient: n-octanol/water | Not determined |
| Auto-ignition temperature (°C) | Not determined |
| Decomposition temperature (°C) | Not determined |
| Viscosity | 55-60 kU |
| Explosive properties | Not determined |

Oxidising properties Not determined

9.2 Other information

VOC Content g/l:

Calculated grams of VOC per liter of coating product as applied.

Specific Gravity (g/cm³) 1.147

10. Stability and Reactivity

10.1 Reactivity

No reactivity hazards known under normal storage and use conditions.

10.2 Chemical stability

Stable under recommended storage conditions. Risk of ignition.

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 (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:

Inhalation LC50:

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.

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> |
|----------------|----------------------|--|--------------------|---------------------------------|
| 1330-20-7 | xylene | 4300 mg/kg, rat, oral | | 15000 ppm/4 hrs rat, inhalation |
| 100-41-4 | ethylbenzene | 3500 mg/kg rat, oral | | |
| 108-88-3 | toluene | 5000 mg/kg rat oral, 14000 mg/kg rabbit dermal | | 8000 ppm/4 hrs, rat, inhalation |

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> |
|----------------|-------------------------------|------------------|------------------|------------------|
| 1330-20-7 | xylene | No information | No information | |
| 7429-90-5 | aluminium powder (stabilized) | No information | No information | |
| 14808-60-7 | quartz (silicon dioxide) | No information | No information | |
| 100-41-4 | ethylbenzene | No information | No information | |
| 108-88-3 | toluene | No information | No information | |
| 78-83-1 | 2-methylpropan-1-ol | No information | No information | |

13. Disposal Considerations

- 13.1 WASTE TREATMENT METHODS:** Do not burn, or use a cutting torch on, the empty drum. 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:** 1263
- 14.2 UN proper shipping name:** Paint-related materials including paint, lacquer, enamel, stain, shellac solutions, varnish, polish, liquid filler, and liquid lacquer base
- Technical name:**
- 14.3 Transport hazard class(es):**
- Subsidiary shipping hazard:**
- 14.4 Packing group:** II
- 14.5 Environmental hazards:**
- 14.6 Special precautions for user:** Not applicable
- EmS-No.:**
- 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:****Danish MAL Code:****Sweden Product Registration Number:****Norway Product Registration Number:****WGK Class:****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**

| | |
|------|--|
| H225 | Highly flammable liquid and vapour. |
| H226 | Flammable liquid and vapour. |
| H261 | In contact with water releases flammable gas. |
| H312 | Harmful in contact with skin. |
| H315 | Causes skin irritation. |
| H318 | Causes serious eye damage. |
| H332 | Harmful if inhaled. |
| H335 | May cause respiratory irritation. |
| H336 | May cause drowsiness or dizziness. |
| H350 | May cause cancer. |
| H361 | Suspected of damaging fertility or the unborn child. |
| H370 | Causes damage to organs. |
| H372 | Causes damage to organs through prolonged or repeated exposure. |
| H373 | May cause damage to organs through prolonged or repeated exposure. |

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
 ESIS (The European Chemical Substances Information System), provided by the European Commission
 Joint Research Centre in Ispra, Italy
 Annex VI of the EU Council Directive 67/548/EEC
 Council Directive 67/548/EEC - Annex I or EU Council Directive 1999/45/EC
 European Union (EC) Regulation No. 1272/2008 on the classification, labelling and packaging of
 substances and mixtures (CLP Regulation)
 EU Council Decision 2000/532/EC and its Annex entitled "List of Wastes"

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 |

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.