



**Safety Data Sheet**  
**prepared to UN GHS Revision 3**

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

|     |                                                                               |                                                                                                                                           |                  |            |
|-----|-------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|------------------|------------|
| 1.1 | Product Identifier                                                            | 751 ACT                                                                                                                                   | Revision Date:   | 15/08/2022 |
|     | Product Name:                                                                 | TAMMSFLEX 90 - ACT                                                                                                                        | Supersedes Date: | New SDS    |
| 1.2 | Relevant identified uses of the substance or mixture and uses advised against | No Information                                                                                                                            |                  |            |
| 1.3 | Details of the supplier of the safety data sheet                              |                                                                                                                                           |                  |            |
|     | Importer:                                                                     | Importer                                                                                                                                  |                  |            |
|     | Manufacturer:                                                                 | StonCor Africa (Pty.) Ltd.<br>8 Cresset Road<br>Midrand Industrial Park, Chloorkop<br>P.O. Box 2205<br>2001, Johannesburg<br>South Africa |                  |            |
|     |                                                                               | Regulatory / Technical Information:<br>+27 11 254 5500                                                                                    |                  |            |
|     | Datasheet Produced by:                                                        | Lekgoro, Wayne - ehs@stoncor.com                                                                                                          |                  |            |
| 1.4 | Emergency telephone number:                                                   | CHEMTREC 1-800-424-9300 (Inside US)<br>CHEMTREC +1 703 5273887 (Outside US)<br>Giftinformasjonen: +47 22 59 13 00                         |                  |            |

## 2. Hazard Identification

### 2.1 Classification of the substance or mixture

Acute Toxicity, Inhalation, category 4  
Carcinogenicity, category 2  
Eye Irritation, category 2A  
Respiratory Sensitizer, category 1  
STOT, repeated exposure, category 2  
STOT, single exposure, category 3, RTI  
Skin Irritation, category 2  
Skin Sensitizer, category 1

## 2.2 Label elements

### Symbol(s) of Product



### Signal Word

Danger

### Named Chemicals on Label

4,4'-methylenediphenyl diisocyanate, isocyanic acid, polymethylenepolyphenylene ester

### HAZARD STATEMENTS

|                                        |      |                                                                            |
|----------------------------------------|------|----------------------------------------------------------------------------|
| Skin Irritation, category 2            | H315 | Causes skin irritation.                                                    |
| Skin Sensitizer, category 1            | H317 | May cause an allergic skin reaction.                                       |
| Eye Irritation, category 2A            | H319 | Causes serious eye irritation.                                             |
| Acute Toxicity, Inhalation, category 4 | H332 | Harmful if inhaled.                                                        |
| Respiratory Sensitizer, category 1     | H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| STOT, single exposure, category 3, RTI | H335 | May cause respiratory irritation.                                          |
| Carcinogenicity, category 2            | H351 | Suspected of causing cancer.                                               |
| STOT, repeated exposure, category 2    | H373 | May cause damage to organs through prolonged or repeated exposure.         |

### PRECAUTION PHRASES

|              |                                                                                                                                     |
|--------------|-------------------------------------------------------------------------------------------------------------------------------------|
| P260         | Do not breathe dust/fume/gas/mist/vapours/spray.                                                                                    |
| P280         | Wear protective gloves/protective clothing/eye protection/face protection.                                                          |
| P284         | Wear respiratory protection.                                                                                                        |
| P285         | In case of inadequate ventilation wear respiratory protection.                                                                      |
| 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.                                                                              |
| P314         | Get medical advice/attention if you feel unwell.                                                                                    |
| P333+313     | If skin irritation or rash occurs: Get medical advice/attention.                                                                    |
| P341         | If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.                     |
| P342+311     | If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.                                                     |

## 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> |
|------------------------------|------------------|----------------|----------|------------------------|
|------------------------------|------------------|----------------|----------|------------------------|

|                                                         |           |           |           |                                      |
|---------------------------------------------------------|-----------|-----------|-----------|--------------------------------------|
| isocyanic acid,<br>polymethylenepolyphen<br>ylene ester | 618-498-9 | 9016-87-9 | 75-100    | H315-317-319-332-3<br>34-335-351-373 |
| 4,4'-methylenediphenyl<br>diisocyanate                  | 202-966-0 | 101-68-8  | 2.5 - <10 | H315-317-319-332-3<br>34-335-351-373 |

| <u>CAS-No.</u> | <u>M-Factors</u> |
|----------------|------------------|
| 9016-87-9      | 0                |
| 101-68-8       | 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.

**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. 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

Flash back possible over considerable distance. In the event of fire, wear self-contained breathing apparatus. Water sprayDry powderAlcohol-resistant foamCarbon dioxide (CO<sub>2</sub>). Do not use a solid water stream as it may scatter and spread fire.

Hazardous decomposition products formed under fire conditions. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

## 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)

| <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> |
|-----------------------------------------------------|----------------|-----------------|-----------------|-------------------|-------------------|
| isocyanic acid,<br>polymethylenepolyphenylene ester | 9016-87-9      |                 |                 |                   |                   |
| 4,4'-methylenediphenyl diisocyanate                 | 101-68-8       |                 |                 | 0.07              |                   |

| <u>Name</u>                                         | <u>CAS-No.</u> | <u>OEL Note</u> |
|-----------------------------------------------------|----------------|-----------------|
| isocyanic acid,<br>polymethylenepolyphenylene ester | 9016-87-9      |                 |
| 4,4'-methylenediphenyl diisocyanate                 | 101-68-8       |                 |

**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

|                                                     |                      |
|-----------------------------------------------------|----------------------|
| <b>Appearance:</b>                                  | Clear Viscous Liquid |
| <b>Physical State</b>                               | Liquid               |
| <b>Odor</b>                                         | Solvent              |
| <b>Odor threshold</b>                               | Not determined       |
| <b>pH</b>                                           | Not determined       |
| <b>Melting point / freezing point (°C)</b>          | Not determined       |
| <b>Boiling point/range (°C)</b>                     | 126 - 126            |
| <b>Flash Point, (°C)</b>                            | 220                  |
| <b>Evaporation rate</b>                             | Slower than ether    |
| <b>Flammability (solid, gas)</b>                    | Not determined       |
| <b>Upper/lower flammability or explosive limits</b> | 999 - 0              |
| <b>Vapour Pressure</b>                              | Not determined       |
| <b>Vapour density</b>                               | Heavier than air     |
| <b>Relative density</b>                             | 1.10 - 1.14          |
| <b>Solubility in / Miscibility with water</b>       | Reacts               |
| <b>Partition coefficient: n-octanol/water</b>       | Not determined       |
| <b>Auto-ignition temperature (°C)</b>               | Not determined       |
| <b>Decomposition temperature (°C)</b>               | Not determined       |
| <b>Viscosity</b>                                    | Not determined       |
| <b>Explosive properties</b>                         | Not determined       |
| <b>Oxidising properties</b>                         | Not determined       |

### 9.2 Other information

|                                                                         |       |
|-------------------------------------------------------------------------|-------|
| <b>VOC Content g/l:</b>                                                 | 385   |
| <b>Calculated grams of VOC per liter of coating product as applied.</b> |       |
| <b>Specific Gravity (g/cm3)</b>                                         | 1.233 |

## 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 does not 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 available.

Inhalation LC50: No information available.

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> |
|----------------|--------------------------------------------------------|---------------------|--------------------|-----------------------------------|-----------------|-----------------------|
| 9016-87-9      | isocyanic acid,<br>polymethylenepolyphenylene<br>ester | >10000 mg/kg        | >9400 mg/kg        | 0..49 mg/l (4 h,<br>Aerosol. rat) | 0.000           |                       |
| 101-68-8       | 4,4'-methylenediphenyl<br>diisocyanate                 | 15000 mg/kg<br>oral |                    | 43 ppm vapor 4<br>hrs             | 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                                                                     |

| CAS-No.   | Chemical Name                                    | EC50 48hr      | IC50 72hr      | LC50 96hr  |
|-----------|--------------------------------------------------|----------------|----------------|------------|
| 9016-87-9 | isocyanic acid, polymethylenepolyphenylene ester | No information | 1640 mg/l      | >1000 mg/l |
| 101-68-8  | 4,4'-methylenediphenyl diisocyanate              | >1000 mg/l     | No information | >1000 mg/l |

### 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                                                                | UN 1263                                                                                        |
| 14.2 UN proper shipping name                                                  | Paint or paint related materials (All the cargo products (Part A & B) are components of paint) |
| Technical name                                                                | Not applicable                                                                                 |
| 14.3 Transport hazard class(es)                                               | 3                                                                                              |
| 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:**

|      |                                                                            |
|------|----------------------------------------------------------------------------|
| H315 | Causes skin irritation.                                                    |
| H317 | May cause an allergic skin reaction.                                       |
| H319 | Causes serious eye irritation.                                             |
| H332 | Harmful if inhaled.                                                        |
| H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| H335 | May cause respiratory irritation.                                          |
| H351 | Suspected of causing cancer.                                               |
| 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;  
 European Union Commission Regulation No. 1907/2006 on REACH as amended within Commission Regulation (EU) 2015/830;  
 European Union (EC) Regulation No. 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP Regulation) and subsequent technical progress adaptations (ATP);  
 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 <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                                                                                              |

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.

