

## MATERIAL SAFETY DATA SHEET

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### SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

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| <b>PRODUCT NAME</b>                  | IVORY 348 ACTIVATOR  |
| <b>MSDS REVISION NUMBER</b>          | 1  |
| <b>MANUFACTURER</b>                  | Flowcrete SA (Pty.) Ltd.<br>176 Voortrekker Street<br>Jacobs<br>4052 |
| <b>TELEPHONE NUMBER</b>              | (031) 461 3411   |
| <b>EMERGENCY TELEPHONE NUMBER(S)</b> | Rob Weyers<br>(031) 461 3411   |
| <b>SYNONYMS</b>                      | None   |
| <b>CHEMICAL FAMILY</b>               | Aromatic amine   |
| <b>UN NUMBER</b>                     | 1760   |
| <b>PREPARED</b>                      | January 2014   |

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### SECTION 2 - COMPOSITION

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|-----------------------------|--|
| <b>HAZARDOUS COMPONENTS</b> | 1. 4,4'-Diaminodiphenyl methane<br>2. Polymeric MDA<br>3. Tetrahydrofurfuryl alcohol |
| <b>R - PHRASES</b>          | R 20 / 21 / 22 / 43 / 45 / 48  |
| <b>S - PHRASES</b>          | S 45 / 53  |

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## SECTION 3 - HAZARDS IDENTIFICATION

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|------------------------------------|---|
| <b>FLAMMABILITY</b>                | 3 - Slight                                      |
| <b>HEALTH EFFECTS - EYES</b>       | Eye irritant.                                   |
| <b>HEALTH EFFECTS - SKIN</b>       | Skin irritant.<br>May cause skin sensitisation. |
| <b>HEALTH EFFECTS - INGESTION</b>  | Harmful if swallowed.                           |
| <b>HEALTH EFFECTS - INHALATION</b> | Respiratory irritant.                           |

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## SECTION 4 - FIRST AID MEASURES

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| <b>EYE CONTACT</b>  | Hold eye lids apart and immediately flush with plenty of water for at least 15 minutes. Seek medical attention immediately.                  |
| <b>SKIN CONTACT</b> | Rinse thoroughly with plenty of soap and water. Remove contaminated clothing and shoes. Seek medical attention if irritation persists.       |
| <b>INGESTION</b>    | Rinse mouth thoroughly with water. Do not induce vomiting. Seek medical attention immediately. Never give anything to an unconscious person. |
| <b>INHALATION</b>   | Move to fresh air. If breathing has stopped or is laboured, give assisted respiration. Seek medical attention immediately.                   |

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## SECTION 5 - FIRE FIGHTING MEASURES

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| <b>FIRE RATING</b>                      | 3 - Slight   |
| <b>EXTINGUISHING MEDIA</b>              | Water streams<br>Ignition will give rise to a Class B fire.  |
| <b>SPECIAL FIRE FIGHTING PROCEDURES</b> | A face shield should be worn. Fire fighters must wear boots, gloves, body suit and a self contained breathing apparatus. Water spray may be used to cool closed containers exposed to fire. Retain expended liquids from fire fighting for later disposal. |
| <b>REACTIVITY</b>                       | 2 - Moderate<br>May generate carbon monoxide, nitrogen oxide gases and ammonia gas.  |

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## SECTION 6 - ACCIDENTAL RELEASE MEASURES

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### PERSONAL PRECAUTIONS

Wear long sleeved clothing, boots, gloves, and eye protection.

### ENVIRONMENTAL PRECAUTIONS

Contain or dyke the entire perimeter of the contaminated area. Ensure that the spilled material does not enter any drains, surface or ground water.

### SPILL CLEAN-UP PROCEDURE

Working from the outer circumference of the contained spill area, absorb the product with sand or sawdust. Collect and place the contaminated materials in an approved disposal container. Dispose of contaminants in accordance with the Local and National By-laws. Should the spill exceed the in-house capabilities, call a spill responder immediately.

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## SECTION 7 - HANDLING AND STORAGE

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### STORAGE

Keep in cool, dry, ventilated storage and in closed containers. Keep away from acids, alkalis, oxidisers, heat, flames and sparks.

### HANDLING

Avoid contact with skin and eyes. Do not ingest or inhale. When handling, do not eat, drink or smoke.

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## SECTION 8 - PERSONAL PROTECTION / EXPOSURE CONTROLS

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### EYE PROTECTION

Wear chemical safety glasses or goggles. Provide readily accessible eye wash stations.

### SKIN PROTECTION

Wear long sleeved clothing, gloves, and boots. Provide readily accessible safety showers.

### RESPIRATORY PROTECTION

No respiratory protection is required under normal conditions in well ventilated areas. Wear suitable breathing apparatus when there is inadequate ventilation.

### INGESTION PROTECTION

Wash before eating, drinking or smoking. Observe the rules of hygiene.

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## SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

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| <b>PHYSICAL FORM</b>                   | Mobile liquid      |
| <b>COLOUR</b>                          | Brown              |
| <b>ODOUR</b>                           | Mild ammoniacal    |
| <b>pH</b>                              | Alkaline           |
| <b>BOILING POINT</b>                   | > 149 °C           |
| <b>MELTING POINT</b>                   | No data            |
| <b>FLASH POINT</b>                     | 91 °C (Closed cup) |
| <b>FLAMMABILITY</b>                    | 3 - Slight         |
| <b>VAPOUR PRESSURE (mm Hg @ 21 °C)</b> | < 10.33835         |
| <b>VISCOSITY (@ 25 °C)</b>             | 1 500 cps          |
| <b>SPECIFIC GRAVITY</b>                | 1.13               |
| <b>SOLUBILITY IN WATER</b>             | Slight             |

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## SECTION 10 - STABILITY AND REACTIVITY

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|---|--|
| <b>CHEMICAL STABILITY</b>               | Stable   |
| <b>CONDITIONS TO AVOID</b>              | Not applicable – product is stable   |
| <b>INCOMPATIBLE MATERIALS</b>           | Mineral acids (H <sub>2</sub> SO <sub>4</sub> , H <sub>3</sub> PO <sub>4</sub> , etc.)<br>Alkalis (NaOH, KOH, etc.)<br>Organic acids (CH <sub>3</sub> COOH, etc.)<br>Reducing agents (hydrides, sulfites, etc.)<br>Oxidising agents (perchlorates, nitrates, etc.)<br>Reactive metals (Na, Ca, Zn, etc.) |
| <b>HAZARDOUS DECOMPOSITION PRODUCTS</b> | In a fire, carbon monoxide, carbon dioxide, ammonia and nitrogen oxide vapours may be generated.   |

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## SECTION 11 - TOXICOLOGICAL PROPERTIES

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| <b>ACUTE ORAL TOXICITY (LD50, RAT)</b>       | 874 mg/kg  |
| <b>ACUTE DERMAL TOXICITY (LD50, RABBIT)</b>  | > 1000 mg/kg (estimate)  |
| <b>ACUTE INHALATION TOXICITY (LD50, RAT)</b> | No data  |
| <b>EYE AND SKIN CONTACT</b>                  | Eye and skin irritant. Repeated exposure may cause skin sensitisation. |
| <b>CARCINOGENICITY</b>                       | Suspected cancer hazard. Contains material which may cause cancer.     |

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## SECTION 12 - ECOLOGICAL INFORMATION

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Material is expected to cause long term adverse effects in the aquatic environment.

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## SECTION 13 - DISPOSAL CONSIDERATIONS

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### WASTE DISPOSAL

Use a reputable waste disposal contractor. Waste disposal measures must comply with all Local and National By-laws.

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## SECTION 14 - TRANSPORT INFORMATION

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|                            |                           |
|----------------------------|---------------------------|
| UN NUMBER                  | 1760                      |
| IMO SHIPPING NAME          | Corrosive liquid, N.O.S.  |
| IMO CLASS AND DANGER GROUP | Class 8, Danger Group III |
| IMO SUBSIDIARY RISK(S)     | None                      |

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## SECTION 15 - REGULATORY INFORMATION

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### RISK (R) PHRASES

R 20 / 21 / 48 - Harmful : danger of serious damage to health by prolonged exposure through inhalation and contact with skin and if swallowed.  
R 43 - May cause sensitisation by skin contact.  
R 45 - May cause cancer.

### SAFETY (S) PHRASES

S 45 - In case of an accident or if you feel unwell, seek medical advice immediately.  
S 53 - Obtain special instructions before use.

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## SECTION 16 - OTHER INFORMATION

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Alert workers to this hazardous potential and ensure precautions are taken. In cases of any discomfort always seek medical advice.

All information is given in good faith but without guarantee in respect of accuracy. No responsibility is accepted for error of omission or the consequences thereof.