1. IDENTIFICATION OF THE SUBSTANCE/ PREPARATION AND THE COMPANY

1.1 CHEMICAL PRODUCT CALABOND AG

1.2 APPLICATION TEXTILE AUXILIARY

1.3 COMPANY IDENTIFICATION I.C.I Pakistan Ltd.

1.4 EMERGENCY TELEPHONE 111-100-200

2. COMPOSITION/ INFORMATION ON INGREDIENTS

2.1 CHEMICAL DESCRIPTION A DISPERSION OF VINYL BASED RESIN

2.2 HAZARDOUS INGREDIENTS

<table>
<thead>
<tr>
<th>INGREDIENT</th>
<th>C.P.L CLASS</th>
<th>CAS No.</th>
<th>EINECS NO</th>
<th>WT %</th>
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<tbody>
<tr>
<td>VINYL ACETATE</td>
<td>N.A</td>
<td>108-05-4</td>
<td>N.A</td>
<td>&lt;1%</td>
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<tr>
<td>MONOMER</td>
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</tbody>
</table>
3. HAZARDS IDENTIFICATION

EYE CONTACT    MAY CAUSE EYE IRRITATION
SKIN CONTACT    MAY CAUSE SKIN IRRITATION
INGESTION       MAY CAUSE IRRITATION OF THE GASTROINTESTINAL TRACT
INHALATION      AT ROOM TEMPERATURE, VAPORS ARE NOT EXPECTED TO FORM. IF MATERIAL IS HEATED VAPOR CONCENTRATION MAY BECOME SUFFICIENT TO CAUSE RESPIRATORY IRRITATION.

4. FIRST AID MEASURES

4.1 EYE CONTACT    IMMEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES, OCCASIONALLY LIFTING THE UPPER AND LOWER EYELIDS. GET MEDICAL AID IF IRRITATION PERSIST.
4.2 SKIN CONTACT   IMMEDIATELY FLUSH SKIN WITH PLENTY OF SOAP AND WATER FOR AT LEAST 15 MINUTES WHILE REMOVING CONTAMINATED CLOTHING AND SHOES.
4.3 INGESTION      IMMEDIATELY CALLS PHYSICIAN. IF SWALLOWED, INDUCE VOMITING IMMEDIATELY AS DIRECTED BY MEDICAL PERSONNEL. IF PERSON VOMITS WHILE LYING ON HIS BACK, PLACE HIM IN AN UPRIGHT POSITION.
4.4 INHALATION     IF DIFFICULTIES OCCUR AFTER VAPOUR/AEOSOL HAS BEEN INHALED, REMOVE TO FRESH AIR AND SEEK MEDICAL ATTENTION.

5. FIRE EXTINGUISHING MEDIA

GENERAL INFORMATION  AS IN ANY FIRE, WEAR A SELF-CONTAINED BREATHING APPARATUS WITH PRESSURE ON DEMAND, MSHA/NIOSH (APPROVED OREQUIVALENT), AND FULL PROTECTIVE GEAR. PRODUCT WILL BURN IF INVOLVED IN A FIRE.
5.1 EXTINGUISHING MEDIA WATER, MIST, CO2, DRY POWDER
5.2 FIRE AND EXPLOSION HAZARDS
THE PRODUCT IS NOT FLAMMABLE

5.3 PROTECTIVE MEASURES
A SELF FULL OXYGEN BOTTLE CONTAINED BREATHING
SHOULD BE USED TO QUENCH FIRE. SUGGESTED PROTECTIVE
CLOTHING.

6. ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS
AVOID DIRECT CONTACT WITH EYES.

6.2 ENVIRONMENTAL
DO NOT ALLOW CHEMICAL TO ENTER PRECAUTIONS
WATER SOURCES AND SEWER SYSTEMS.

6.3 CLEANING UP
CONTAIN SPILLAGES WITH SAND, EARTH OR ANY SUITABLE
ADSORBENT MATERIAL. TRANSFER TO A CONTAINER FOR
DISPOSAL. WASH THE SPILLAGE AREA. CLEAN WITH WATER
AND DETERGENT.

7. STORAGE AND HANDLING

7.1 STORAGE
KEEP ONLY THE ORIGINAL CONTAINER IN A WELL-
VENTILATED PLACE AWAY FROM EXCESS HEAT AND COOL.
KEEP CONTAINER TIGHTLY CLOSED. STORE AT ROOM.
TEMPERATURE. AVOID CONTACT WITH DIRECT SUNLIGHT.

7.2 RECOMMENDED SHELF LIFE
06 MONTHS

7.3 HANDLING
HANDLE IN ACCORDANCE WITH GOOD INDUSTRIAL HYGIENE
PRACTISES AND USUAL SAFETY MEASURES

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

8.1 OCCUPATIONAL EXPOSURE LIMITS
CHEMICAL
10 PPM TWA (ACGIH)
15 PPM STEL (ACGIH)

8.2 ENGINEERING MEASURES
ENSURE ADEQUATE VENTILATION

8.3 PERSONAL PROTECTIVE EQUIPMENT
RESPIRATORY PROTECTION
NOT REQUIRED
(INCASE REQUIRED: APPROVED ORGANIC VAPOR MIST)
9. PHYSICAL/ CHEMICAL PROPERTIES

9.1 APPEARANCE                  WHITE THICK DISPERSION

9.2 ODOUR                       NOT APPLICABLE

9.3 Ph                          5-7 (10% SOLUTION)

9.4 VISCOSITY                   80 - 100 POISE @ 30 oC (AT ROTO THINNER)

9.5 FREEZING POINT              NOT ASSESSED

9.6 FREEZE THAW RECOVERY        NOT ASSESSED

9.7 BOILING POINT               NOT APPLICABLE

9.8 MELTING POINT               NOT APPLICABLE

9.9 FLASH POINT                 NOT ASSESSED

9.10 AUTOFLAMMABILITY           NOT APPLICABLE

9.11 EXPLOSIVE PROPERTIES       NOT APPLICABLE

9.12 VAPOUR PRESSURE            NOT ASSESSED

9.13 VAPOUR DENSITY             NOT ASSESSED

9.14 RELATIVE DENSITY           NOT ASSESSED

9.15 SOLUBILITY                 DISPERSIBLE IN WATER.

9.16 PARTITION COEFFICIENT      NOT APPLICABLE
10. STABILITY AND REACTIVITY

10.1 STABILITY
STABLE UNDER NORMAL WORKING CONDITIONS.

10.2 CONDITIONS TO AVOID
NONE KNOWN

10.3 MATERIALS TO AVOID
IGNITION SOURCES

10.4 HAZARDOUS DECOMPOSITION PRODUCTS
OXIDES OF CARBON, SULPHUR AND NITROGEN

11. TOXICOLOGICAL INFORMATION

11.1 SHORT TERM EFFECTS

EYE CONTACT
IRRITANT TO EYES

SKIN CONTACT
IRRITANT TO SKIN

INGESTION
VERY LOW TOXICITY

INHALATION
NOT APPLICABLE

11.2 CHRONIC EFFECTS
PROLONGED USE MAY CAUSE DERMATITIS

11.3 CARCINOGENICITY
NOT LISTED BY ACGIH, IARC, NIOSH, NTP, OR OSHA

12. ECOLOGICAL INFORMATION

12.1 AG 50
NOT ASSESSED

12.2 BOD
NOT ASSESSED

12.3 COD
NOT ASSESSED

12.4 OTHER
NOT ASSESSED

THE PRODUCT, BY ANALOGY, IS EXPECTED TO BE PARTIALLY BIODEGRADABLE. EXPECTED TO BE OF LOW TOXICITY TO AQUATIC LIFE. THE PRODUCT IS SUBSTANTIALLY REMOVED IN BIOLOGICAL TREATMENT PROCESSES.
13 DISPOSAL CONSIDERATIONS

DISPOSAL SHOULD BE IN ACCORDANCE WITH LOCAL, STATE OR NATIONAL LEGISLATION.

14. TRANSPORT INFORMATION

14.1 PACKAGING
200 Kg IRON DRUM OPEN MOUTH.

14.2 FREIGHT CLASSIFICATIONS
NOT APPLICABLE

UN NUMBER
NOT APPLICABLE

ADR NUMBER
NOT APPLICABLE

IMDG NUMBER
NOT APPLICABLE

PACKING GROUP
NOT APPLICABLE

TERM CARD
NOT APPLICABLE

15 REGULATORY INFORMATION

15.1 C.P.L CLASSIFICATION
NOT APPLICABLE

HAZARD PICTOGRAM
Xi (IRRITANT)

RISK PHRASES
R-36, R-38

SAFETY PHRASES
S-24, S-25, S-26

15.2 OTHER LEGISLATION
NOT APPLICABLE

16. OTHER INFORMATION

ISSUE NUMBER
4

DATE
FEB 2016