Safety Data Sheet
Technic B18S

1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION

Manufacturer
Techno Waxchem PVT. LTD.
3C, Hitech Chambers, 84/1B, Topsia Road(S),
Kolkata – 700 046, WB, India
Tel: +91 33 2285 1278 / 1279, 4004 8093 / 88094

Trade Name(s): Technic B18S

Emergency Contact
Chemtrec: 1-800-424-9300 (continental USA)
(1)703-527-3887 (outside continental USA)

Chemical Name: Resorcinol Formaldehyde Resin

Relevant identified uses of the substance or mixture and uses advised against:
No further relevant information available.

Issued By: Sovereign Chemical Company
According to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and GHS

SDS Number: 1887
Date of Issue: February 24, 2014
Revision Number: 1
Change(s): First issue.

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008

Class 1: GHS07
Acute Tox. 4 H302 Harmful if swallowed.
Skin Irrit. 2 H315 Causes skin irritation
Eye Irrit. 2 H319 Causes serious eye irritation.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC

Class 1: Xn; Harmful
R22 Harmful if swallowed.

Class 1: Xi; Irritant
R36/38 Irritating to eyes and skin.

Information concerning particular hazards for human and environment
The product has to be labeled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

Classification system
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.
The classification is in accordance with the latest editions of international substances lists, and is supplemented by information from technical literature and by information provided by the company.

Additional information: May form combustible dust concentrations in air.

2.2 Label elements
Labeling according to Regulation (EC) No 1272/2008
The substance is classified and labeled according to the CLP regulation.

Hazard pictograms

Class 1: GHS07
Signal word: Warning
Hazard-determining components of labeling
Resorcinol Formaldehyde Resin
resorcinol

Hazard statements
H302 Harmful if swallowed.
H315 Causes skin irritation.
H319 Causes serious eye irritation.

Precautionary statements
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P270 Do not eat, drink or smoke when using this product.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Additional information: May form combustible dust concentrations in air.

Hazard description

WHMIS-symbols
D2A – Very toxic material causing other toxic effects.

Hazard description

NFPA ratings (scale 0-4)
Health = 2
Fire = 0
Reactivity = 0

HMIS ratings (scale 0-4)
Health = 2
Fire = 0
Reactivity = 0

2.3 Other hazards
Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures
Description: Mixture of substances listed below with nonhazardous additions.
Components

<table>
<thead>
<tr>
<th>CAS: 65876-95-1</th>
<th>Resorcinol Formaldehyde Resin</th>
<th>50-100%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Xn R22; Xi R36/38</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2, H319</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS: 108-46-3</th>
<th>resorcinol</th>
<th>10-25%</th>
</tr>
</thead>
<tbody>
<tr>
<td>EINECS: 203-585-2</td>
<td>Xn R22; Xi R36/38; Xn R50</td>
<td></td>
</tr>
<tr>
<td>Index number: 604-010-00-1</td>
<td>Aquatic Acute 1, H400</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2, H319</td>
<td></td>
</tr>
</tbody>
</table>

Additional information: For wording of the listed risk phrases refer to section 16.
4. **FIRST AID MEASURES**

4.1 Description of first aid measures

**General information**

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

**After inhalation:** Supply fresh air; consult doctor in case of complaints.

**After skin contact**

Brush off loose particles from skin.
Immediately wash with water and soap and rinse thoroughly.
If skin irritation continues, consult a doctor.

**After eye contact**

Remove contact lenses if worn.
Rinse opened eye for several minutes under running water. Then consult a doctor.

**After swallowing**

Rinse out mouth and then drink plenty of water.
Do not induce vomiting; call for medical help immediately.

4.2 **Most important symptoms and effects, both acute and delayed**

Irritant to skin and mucous membranes.
Irritant to eyes
Methaemoglobinemia
Cyanosis
Profuse sweating
Gastric or intestinal disorders.

**Hazards**

Danger of disturbed cardiac rhythm.
Danger of cerebral oedema.
Danger of circulatory collapse.
Danger of convulsion.

4.3 **Indication of any immediate medical attention and special treatment needed**

Contains dihydroxybenzenes. Consult literature for specific antidotes.
If necessary oxygen respiration treatment.
Do not administer preparations of the adrenalin-ephedrine-group.

5. **FIRE FIGHTING MEASURES**

5.1 Extinguishing media

**Suitable extinguishing agents:** Foam, Fire-extinguishing powder, gaseous extinguishing agents, carbon dioxide.

**For safety reasons unsuitable extinguishing agents:** Water.

5.2 **Special hazards arising from the substance or mixture**

May form combustible dust concentrations in air.
Formation of toxic gases is possible during heating or in case of fire.

5.3 **Advice for firefighters**

**Protective equipment**

Wear self-contained respiratory protective device.
Wear fully protective suit.

**Additional information:** No further relevant information available.

6. **ACCIDENTAL RELEASE MEASURES**

6.1 **Personal precautions, protective equipment and emergency procedures**

Use respiratory protective device against the effects of fumes/dust/aerosol.
Avoid formation of dust.
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation.

6.2 **Environmental precautions**

Do not allow to enter sewers/surface or ground water.
Damp down dust with water spray.

6.3 Methods and material for containment and cleaning up
Pick up mechanically.
Send for recovery or disposal in suitable receptacles.
Dispose contaminated material as waste according to Section 13.

6.4 Reference to other sections
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling
Prevent formation of dust.
Store in cool, dry place in tightly closed receptacles.

Information about fire and explosion protection: Keep respiratory protective device available.

7.2 Conditions for safe storage, including any incompatibilities
Storage
Requirements to be met by storerooms and receptacles
Avoid storage near extreme heat, ignition sources or open flame.
Protect from humidity and water.

Information about storage in one common storage facility
Store away from foodstuffs.
Do not store together with oxidizing and acidic materials.

Further information about storage conditions
Keep container tightly sealed.
Protect from humidity and water.
This product is hygroscopic.

7.3 Specific end use(s): No further relevant information available.

8. EXPOSURE CONTROLS - PERSONAL PROTECTION

Additional information about design of technical facilities: No further data; see Section 7.

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace: 108-46-3 resorcinol

| IOELV (EU) | Long-term value: 45 mg/m³, 10 ppm Skin |
| REL (USA)  | Short-term value: 90 mg/m³, 20 ppm Long-term value: 45 mg/m³, 10 ppm |
| TLV (USA)  | Short-term value: 90 mg/m³, 20 ppm Long-term value: 45 mg/m³, 10 ppm |
| EL (Canada)| Short-term value: 20 ppm Long-term value: 10 ppm |
| EV (Canada)| Short-term value: 90 mg/m³, 20 ppm Long-term value: 45 mg/m³, 10 ppm |

DNELs: No further relevant information available.
PNECs: No further relevant information available.

Additional information: The lists valid during the making were used as basis.

8.2 Exposure controls

Personal protective equipment

General protective and hygienic measures
The usual precautionary measures are to be adhered to when handling chemicals.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
Do not inhale dust / smoke / mist.
Respiratory protection
Not required under normal conditions of use.
Use suitable respiratory protective device in case of insufficient ventilation.
Use suitable respiratory protective device when high concentrations are present.
For spills, respiratory protection may be advisable.

Protection of hands

- Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and
varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of
the glove material cannot be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be
observed.

Eye protection

- Safety glasses

Body protection
Not required under normal conditions of use.
Protection may be required for spills.

Limitation and supervision of exposure into the environment: No further relevant information available.

Risk management measures
See Section 7 for additional information.
No further relevant information available.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

General Information

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Solid in various forms.</td>
</tr>
<tr>
<td>Color</td>
<td>Brown</td>
</tr>
<tr>
<td>Odor</td>
<td>Phenol-like</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>Not determined</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>Not determined</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>Not determined</td>
</tr>
<tr>
<td>Density at 20 °C</td>
<td>1.37 g/cm³</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not determined</td>
</tr>
<tr>
<td>Solubility in water</td>
<td>Not miscible or difficult to mix</td>
</tr>
<tr>
<td>Partition coefficient (n0octanol/water):</td>
<td>Not determined</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Dynamic: Not determined.</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Kinematic: Not determined</td>
</tr>
<tr>
<td>Change in Condition</td>
<td>Melting Point/Range: Not determined</td>
</tr>
<tr>
<td>Boiling point/Range</td>
<td>537°F (281°C).</td>
</tr>
<tr>
<td>Relative density</td>
<td>Not determined</td>
</tr>
<tr>
<td>pH value</td>
<td>Not determined</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Flammability (solid, gaseous)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Ignition temperature</td>
<td>Not determined</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not determined</td>
</tr>
<tr>
<td>Self-igniting</td>
<td>Product is not self-igniting</td>
</tr>
<tr>
<td>Danger of explosion</td>
<td>Product does not present an explosion hazard</td>
</tr>
<tr>
<td>Explosion limits</td>
<td>Lower: Not determined.</td>
</tr>
<tr>
<td>Upper: Not determined.</td>
<td></td>
</tr>
</tbody>
</table>

9.2 Other information: No further relevant information available.

10. STABILITY AND REACTIVITY

10.1 Reactivity
10.2 Chemical stability
Thermal decomposition/conditions to be avoided
No decomposition if used and stored according to specifications.
To avoid thermal decomposition do not overheat.

10.3 Possibility of hazardous reactions
As the product is supplied it is not capable of dust explosion; however enrichment with fine dust causes risk of dust explosion.
Toxic fumes may be released if heated above the decomposition point.
Reacts with catalysts, oxidizing agents and strong alkali.

10.4 Conditions to avoid: Moisture.

10.5 Incompatible materials: No further relevant information available.

10.6 Hazardous decomposition products
Carbon monoxide and carbon dioxide.
Small quantities of formaldehyde may be formed.

### 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

**Acute toxicity**

**Primary irritant effect**
- on the skin: Irritant to skin and mucous membranes.
- on the eye: Irritating effect.
- Sensitization: No sensitizing effects known.

**Subacute to chronic toxicity**
Irritant
Toxic and/or corrosive effects may be delayed up to 24 hours.

**Additional toxicological information**
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
- Harmful
- Irritant

### 12. ECOLOGICAL INFORMATION

12.1 Toxicity
**Aquatic toxicity:** The product contains materials that are harmful to the environment.

12.2 Persistence and degradability: biodegradable.

12.3 Bioaccumulative potential: Due to the distribution coefficient n-octanol/water an accumulation in organisms is not expected.

12.4 Mobility in soil: No further relevant information available.

**Ecotoxicological effects**

**Remark**
Due to mechanical actions of the product (e.g. agglutinations) damages may occur.
The product is oxygen consuming. The declared action may be partly caused by lack of oxygen.

**Additional ecological information**

**General notes**
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

12.5 Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.

12.6 Other adverse effects No further relevant information available.

### 13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

**Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
Can be burned with household garbage after consulting with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.
Un-cleaned packaging
Recommendation: Disposal must be made according to official regulations.

### 14. TRANSPORTATION INFORMATION

<table>
<thead>
<tr>
<th>14.1 UN-Number</th>
<th>DOT, ADR, ADN, IMDG, IATA</th>
<th>Not regulated</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2 UN proper shipping name</td>
<td>DOT, ADR, ADN, IMDG, IATA</td>
<td>Not regulated</td>
</tr>
<tr>
<td>14.3 Transport hazard class(es)</td>
<td>DOT, ADR, ADN, IMDG, IATA Class</td>
<td>Not regulated</td>
</tr>
<tr>
<td>14.4 Packing group</td>
<td>DOT, ADR, IMDG, IATA</td>
<td>Not regulated</td>
</tr>
<tr>
<td>14.5 Environmental hazards</td>
<td>Marine pollutant</td>
<td>No</td>
</tr>
<tr>
<td>14.6 Special precautions for user</td>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td>14.7 Transport in bulk according to Annex II of</td>
<td>MARPOL73/78 and the IBC Code</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>UN &quot;Model Regulation&quot;</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

### 15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

#### United States (USA)

<table>
<thead>
<tr>
<th>Regulations</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>SARA Section 355 (extremely hazardous substances)</td>
<td>None of the ingredients is listed.</td>
</tr>
<tr>
<td>SARA Section 313 (Specific toxic chemical listings)</td>
<td>None of the ingredients is listed.</td>
</tr>
<tr>
<td>TSCA (Toxic Substances Control Act)</td>
<td>All ingredients are listed</td>
</tr>
<tr>
<td>Proposition 65 (California)</td>
<td></td>
</tr>
<tr>
<td>Chemicals known to cause cancer</td>
<td>None of the ingredients is listed.</td>
</tr>
<tr>
<td>Chemicals known to cause reproductive toxicity for females</td>
<td>None of the ingredients is listed.</td>
</tr>
<tr>
<td>Chemicals known to cause reproductive toxicity for males</td>
<td>None of the ingredients is listed.</td>
</tr>
<tr>
<td>Chemicals known to cause developmental toxicity</td>
<td>None of the ingredients is listed.</td>
</tr>
<tr>
<td>Carcinogenic Categories</td>
<td></td>
</tr>
<tr>
<td>EPA (Environmental Protection Agency)</td>
<td>None of the ingredients is listed.</td>
</tr>
<tr>
<td>IARC (International Agency for Research on Cancer)</td>
<td>108-46-3 resorcinol 3</td>
</tr>
<tr>
<td>TLV (Threshold Limit Value established by ACGIH)</td>
<td>108-46-3 resorcinol A4</td>
</tr>
<tr>
<td>NIOSH-Ca (National Institute for Occupational Safety and Health)</td>
<td>None of the ingredients is listed.</td>
</tr>
<tr>
<td>OSHA-Ca (Occupational Safety &amp; Health Administration)</td>
<td>None of the ingredients is listed.</td>
</tr>
<tr>
<td>Canada</td>
<td></td>
</tr>
<tr>
<td>Canadian Domestic Substances List (DSL)</td>
<td>All ingredients are listed.</td>
</tr>
<tr>
<td>Canadian Ingredient Disclosure list (limit 0.1%)</td>
<td>None of the ingredients is listed.</td>
</tr>
<tr>
<td>Canadian Ingredient Disclosure list (limit 1%)</td>
<td>108-46-3 resorcinol</td>
</tr>
</tbody>
</table>

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

### 16. OTHER INFORMATION

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Relevant phrases

<table>
<thead>
<tr>
<th>Code</th>
<th>Hazard Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>H302</td>
<td>Harmful if swallowed.</td>
</tr>
<tr>
<td>H315</td>
<td>Causes skin irritation.</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation.</td>
</tr>
<tr>
<td>R22</td>
<td>Harmful if swallowed.</td>
</tr>
<tr>
<td>R36/38</td>
<td>Irritating to eyes and skin.</td>
</tr>
<tr>
<td>R50</td>
<td>Very toxic to aquatic organisms.</td>
</tr>
</tbody>
</table>
Abbreviations and acronyms
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
GHS: Globally Harmonized System of Classification and Labeling of Chemicals
ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
WHMIS: Workplace Hazardous Materials Information System (Canada)
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
Acute Tox. 4: Acute toxicity, Hazard Category 4
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2
Aquatic Acute 1: Hazardous to the aquatic environment – Acute Hazard, Category 1

Sources
SDS Prepared by
ChemTel Inc.
1305 North Florida Avenue
Tampa, Florida USA 33602-2902
Toll Free North America 1-888-255-3924 Intl. +01 813-248-0573
Website: www.chemtelinc.com