1. PRODUCT IDENTIFICATION

PRODUCT NAME ................... Reactive Dye Fixative
PRODUCT CODE NUMBER .. #021
CHEMICAL FAMILY: Polymer in aqueous dispersion
T.S.C.A. STATUS: COMPLIANCE

2. HAZARDOUS INGREDIENTS

HAZARDOUS COMPONENTS: NO HAZARDOUS MATERIALS ARE CONTAINED IN THIS PRODUCT

CURRENT TLV'S: NONE KNOWN

3. HAZARDS IDENTIFICATION

PRIMARY ROUTE OF EXPOSURE

<table>
<thead>
<tr>
<th>INHALATION:</th>
<th>NO</th>
<th>SKIN ABSORPTION:</th>
<th>NO</th>
<th>INGESTION:</th>
<th>YES</th>
</tr>
</thead>
<tbody>
<tr>
<td>SKIN CONTACT:</td>
<td>YES</td>
<td>EYE CONTACT:</td>
<td>YES</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

CARCINOGEN STATUS

IRAC NO  NTP: NO  OSHA: NO  ACGIH: NO

CHRONIC EFFECTS OF OVEREXPOSURE
None Known

SIGNS AND SYMPTOMS OF OVEREXPOSURE
May be irritating to eyes.

MEDICAL CONDITIONS AGGRAVATED
Persons with any pre-existing skin, eye or respiratory condition may be more susceptible to the effects of this product.
4. EMERGENCY AND FIRST AID PROCEDURES

GENERAL INFORMATION: IMMEDIATELY REMOVE ALL CONTAMINATED CLOTHING

EYE CONTACT ........... Wash immediately with large amounts of water for 15 minutes, lifting the upper and lower lids until no evidence of product remain. Get medical attention immediately. Do not wear contact lenses while handling.

SKIN CONTACT .......... Remove all contaminated clothing immediately. Wash immediately with soap and plenty of water. If a temporary skin reaction occurs, it should be treated as allergic contact dermatitis. Launder contaminated clothing before reuse.

INGESTION .............. Dilute with 2 glasses of water and induce vomiting. Get medical attention. Never give mass or induce vomiting if patient is unconscious or has convulsions.

5. FIRE AND EXPLOSION DATA

FLASH POINT ....................... NA
EXTINGUISHING MEDIA ............... CO2 Dry Chemical Foam Water Fog
SPECIAL FIRE FIGHTING PROCEDURES/UNUSUAL FIRE OR EXPLOSION HAZARDS:
Firefighters should be equipped with protective clothing & self-contained breathing apparatus to protect against potentially toxic & irritating fumes. In case of fire or explosion, keep unnecessary people away. Isolate hazard area & any entry. Stay upwind, out of low areas, and ventilate closed spaces before entering.

6. SPILL OR LEAK PROCEDURES

IN CASE MATERIAL IS RELEASED/SPILLED:
Avoid formation and deposition of dust. Do not empty into drains or waters. Do not touch or walk through the spilled material: stop leak if you can do it without risk. Take up with sand or other non-combustible absorbent material or suitable vacuum and place into labeled sealable containers. For further disposal measures see section 13.

7. SPECIAL PRECAUTIONS AND STORAGE DATA

SAFE HANDLING: In accord with good industrial practice. Handle with care and avoid personal contact.

8. EMPLOYEE PROTECTION RECOMMENDATIONS

GENERAL PROTECTIVE MEASURES:
Avoid contact with eyes and skin. Immediately remove all contaminated clothing.

EYE PROTECTION .......... Employees should wear protective eye-goggles with side protection shield.
SKIN PROTECTION  Employees should avoid skin contact by wearing protective clothing. Long sleeve shirts, pants, gloves e.g. of PVC or nitrile rubber, and boots are recommended. Additional protections such as impervious suits are recommended when the potential for dermal contact is significant. Employees should wash their hands and face before eating and drinking and shower thoroughly before leaving work. Keep away from food and drink stuffs.

RESPIRATORY PROTECTION  Inhalation of dust and aerosols must be absolutely prevented by the use of a NIOSH approved dust respirator.

VENTILATION  Use local ventilation.

OTHER  Wear overalls, apron or other protective clothing.

9. PHYSICAL DATA

| APPEARANCE | LIQUID |
| COLOR      | CLEAR STRAW COLORED LIQUID |
| ODOR       | MILD ODOR |
| SOLUBILITY IN WATER | CLEAR |
| IGNITION TEMP | N.A. |
| BULK DENSITY | N.A. |
| pH         | 3.0-4.5 |

%VOLATILE:  VALUE:ND  UNIT:%  COMMENT:

10. REACTIVITY DATA

THERMAL DECOMPOSITION:  No thermal decomposition when stored and handled correctly.
HAZARDOUS REACTIONS:  In the case of dusty organic products the possibility of a dust explosion should always be considered.

11. TOXICOLOGICAL DATA

ANIMAL TOXICITY ORAL- LD50 (INGESTION)  NO DATA
FISH, LC50  NO DATA
EYE EFFECTS  NO DATA
SKIN EFFECTS  NO DATA
SENSITIZATION  NOT EXPECTED

12. ECOLOGICAL DATA

BIODEGRADABILITY:  ND
FISH TOXICITY:  ND
BACTERIA TOXICITY:  ND
13. DISPOSAL CONSIDERATIONS

PRODUCT: Reactive Dye Fixative

If utilization or recycling of the product is not possible, it should be disposed of in accordance with existing federal, state and local environmental regulations, e.g. by incineration in a suitable plant.

UNCLEANED PACKAGING: Soiled, empty containers are to be treated in the same way as the contents.

14. SHIPPING DATA

PROPER SHIPPING NAME: NON-HAZARDOUS INK MATERIAL
D.O.T. HAZARD CLASSIFICATION: NOT REGULATED
FRT. CLASS PACKAGE: 55

15. REGULATORY DATA

US REGULATIONS:
TSCA: The components of this product are listed on the TSCA Inventory
SARA 313: This product is not subject to SARA Title III Section 313 reporting requirements under 40 CFR 372.
SARA 312:
- Immediate (acute) health hazard: Yes
- Delayed (chronic) health hazard: No
- Fire hazard: No
- Sudden Release of Pressure: No
- Reactivity: No

CALIFORNIA PROPOSITION 65: This product does not contain any components currently on the California List of Known Carcinogens and reproductive Toxins.

16. OTHER INFORMATION

Rupert, Gibbon & Spider Inc. warrants that this product conforms to the chemical description on the label and is reasonably fit for the specific purposes referred to in its directions for use, subject to the inherent risks referred to in the material safety data sheet for this product. Rupert, Gibbon & Spider, Inc. makes no other expressed or implied warranty of fitness or merchantability or any other expressed or implied warranty. In no case shall Jacquard be liable for consequential, special, or indirect damages resulting from the use or handling of this product.