

# Safety Data Sheet

## 1. Identification of the substance / preparation and the Company

### 1.1 Identification of the substance or preparation

Code: RIVO 50 PARTE B  
Product name: RIVO 50 PARTE B

### 1.2 Use of the substance / preparation

### 1.3 Company identification

Name: Tenax Spa  
Full address: via I Maggio 226  
District and Country: 37020 Volargne (VR) Italy  
Tel.: 045/6860222  
Fax: 045/6862456

### 1.4 Emergency telephone

For urgent inquiries refer to: tenax@tenax.it  
<http://www.tenax.it>

## 2. Composition / Information on ingredients

### Contains:

Name	Concentration C	Classification
3-AMINOMETHYL- 3,5,5-TRIMETHYLCYCLOHEXYLAMINE	10 <= C < 11,5	R 52/53
Cas No 2855-13-2		C R 34
CE No 220-666-8		Xn R 21/22
Index No 612-067-00-9		Xi R 43

The complete text of -R- phrases is specified in section 16.

## 3. Hazards Identification

### 3.1 Substance/Preparation Classification

This preparate is dangerous under 67/548/EEC and 1999/45/EC regulations and subsequent amendments. Therefore, this preparate requires a safety data sheet according to the 91/155/EC regulation and subsequent amendments. Further information on health and/or environmental hazards can be found in sections 11 and 12 of this sheet.

Danger Symbols: C  
Phrases R: 21/22-34-43

### 3.2 Danger Identification

HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED.  
CAUSES BURNS.

# Tenax Spa

## RIVO 50 PARTE B

Revision nr. 2  
Dated 04/07/05  
Printed on 06/07/05  
Page n. 2 / 5

MAY CAUSE SENSITIZATION BY SKIN CONTACT.

### 4. First aid measures

**EYES:** Irrigate copiously with clean, fresh water for at least 15 minutes.

Seek medical advice.

**SKIN:** Immediately wash with plenty of water. Remove all contaminated clothing. Obtain immediate medical attention. Wash contaminated clothing separately before using them again.

**INHALATION:** Remove to open air. If breathing is irregular or stopped, administer artificial respiration. Obtain immediate medical attention.

**INGESTION:** Obtain immediate medical attention. Induce vomiting only if indicated by the doctor. Give nothing by mouth to an unconscious person.

### 5. Fire-fighting measures

Allow containers to cool in order to avoid product decomposition and generation of substances which might injure the health and be dangerous for safety reasons. Wear the fire equipment all the time.

### 6. Accidental release measures

Extinguish the sources of ignition or heat; cover the spillage with inert absorbent material. Collect as far as possible the resulting mass and discard the remainder by spraying water.

For information on environmental and health risks, protection of the respiratory airways, ventilation and individual protective measures refer to the other sections of this sheet.

### 7. Handling and storage

Store in a well ventilated place, keeping the containers closed when not used. Do not smoke while handling. Keep far away from sources of heat, naked flames and sparks and other sources of ignition.

### 8. Exposure control / personal protection.

Against corrosive properties of the product and according to the type of working, suitable protection equipment should be worn. Such as: an helmet to protect the face, the head and the neck, waterproof gloves and overall, resistant to the product.

Do not eat, drink or smoke while handling it; wash carefully the hands with soap and water before meals and after work shift; a shower is recommended.

### 9. Physical and chemical properties

Colour	COLOURED
Odour	AMMONIACAL
Appearance	PASTE
Solubility	NOT SOLUBLE IN WATER
Viscosity	2500000 CPS
Vapour density	N.A.
Evaporation speed	N.A.
Comburent properties	N.A.
Partition coefficient: n-octanol/water	N.A.
pH	N.A.
Boiling point	N.A.
Flash point	120 °C
Explosive properties	N.A.
Vapour pressure	N.A.
Specific gravity	1,4 Kg/l
Solid content:	100,00 %

### 10. Stability and reactivity

The product is stable in normal conditions of use and storage. Due to thermal decomposition or in the event of a fire vapours may be produced potentially dangerous to health.

Diamine isoforane: avoid contact with strong acids and oxidizing agents. In the event of a fire, there might be toxic nitrous fumes.

### 11. Toxicological information

Acute effects: cutaneous absorption and ingestion of this product are harmful. Upon contact with skin, this product may irritate it, causing an increase in skin temperature, swelling and itchiness. Ingestion of even small amounts of this product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea). This product may slightly irritate mucosae, the upper respiratory tract, and eyes. Exposure symptoms may include: stinging and irritated eyes, mouth, nose, throat; cough, respiratory disorders, dizziness, headache, nausea and sickness.

This product is corrosive and causes abrasions of skin surface, accompanied by rubefaction, warmth and sting. In the most serious cases, small vesicles appear, which cause strong sting and pain. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours. Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness. If swallowed, it may cause mouth, throat and oesophagus burns; sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurves, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scuffy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

### 12. Ecological information

Use this product according to good working practices. Avoid litter. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation.

### 13. Disposal consideration

The product is to be classified as a special waste which cannot be treated as city wastes because it is dangerous.

### 14. Transport information

These goods must be transported by vehicles authorized to the carriage of dangerous goods according to the provisions set out in the current edition of the Code of International Carriage of Dangerous Goods by Road (ADR) and in all the applicable national regulations. These goods must be packed in their original packagings or in packagings made of materials resistant to their content and not reacting dangerously with it. People loading and unloading dangerous goods must be trained on all the risks deriving from these substances and on all actions that must be taken in case of emergency situations.

#### Road and rail transport:

ADR:	8	UN: 2735
Packing Group:	III	
Label:	8	
Nr. Kemler:	80	
Proper Shipping Name:	Amines liquid, corrosive, n.o.s. (2-Piperazin-1-iletillamina)	

#### Carriage by sea (shipping):

# Tenax Spa

## RIVO 50 PARTE B

Revision nr. 2  
Dated 04/07/05  
Printed on 06/07/05  
Page n. 4 / 5

IMO class: 8 UN: 2735  
Packing Group: III  
Label: 8  
EMS: F-A, S-B  
Proper Shipping Name: Amines liquid, corrosive, n.o.s. (2-Piperazin-1-iletillamina)

### Transport by air:

IATA: 8 UN: 2735  
Packing Group: III  
Label: 8  
**Cargo:**  
Packaging instructions: 820 Maximum quantity: 60 L  
**Pass.:**  
Packaging instructions: 818 Maximum quantity: 5 L

## 15. Regulatory information

C



CORROSIVE

- R21/22 HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED.
- R34 CAUSES BURNS.
- R43 MAY CAUSE SENSITIZATION BY SKIN CONTACT.
- S1 KEEP LOCKED UP.
- S26 IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF WATER AND SEEK MEDICAL ADVICE.
- S36/37/39 WEAR SUITABLE PROTECTIVE CLOTHING, GLOVES AND EYE/FACE PROTECTION.
- S45 IN CASE OF ACCIDENT OR IF YOU FEEL UNWELL, SEEK MEDICAL ADVICE IMMEDIATELY (SHOW THE LABEL WHERE POSSIBLE).

Contains:  
3-AMINOMETHYL- 3,5,5-TRIMETHYLCYCLOHEXYLAMINE

Danger labelling under regulations 67/548/EEC and 1999/45/EC and following amendments and adjustments.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC regulation is respected.

## 16. Other information

Text of -R- phrases quoted in section 2 of the sheet.

- R 21/22 HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED.
- R 34 CAUSES BURNS.
- R 43 MAY CAUSE SENSITIZATION BY SKIN CONTACT.
- R 52/53 HARMFUL TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT.

### GENERAL BIBLIOGRAPHY

1. Regulation 1999/45/CE and following amendments;
2. Regulation 67/548/CEE and following amendments and adjustments (technical adjustment XXIX);
3. Regulation 91/155/CEE and following amendments;
4. The Merck Index. - 10th Edition;
5. Handling Chemical Safety;

# Tenax Spa

## RIVO 50 PARTE B

Revision nr. 2  
Dated 04/07/05  
Printed on 06/07/05  
Page n. 5 / 5

6. Niosh - Registry of Toxic Effects of Chemical Substances;
7. INRS - Fiche Toxicologique (toxicological sheet);
8. Patty - Industrial Hygiene and Toxicology;
9. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition;

#### Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product .

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

#### Changes to previous review

The following sections were modified:

01 / 02 / 03 / 09 / 12 / 14 / 15