| Material Safety Data Sheet   |   |  |  |  |
|--|---|--|--|--|
| Chemtura   |   |  |  |  |
| VITAVAX® - 34 SEED TREATMENT FUNGICIDE   |   |  |  |  |
| sion: 1.3  | Revision Date: 07/28/2010 Print Date: 09/06/20  |  |  |  |
| TION 1. PRODUCT AND C  | COMPANY IDENTIFICATION  |  |  |  |
| Product name:  | VITAVAX® - 34 SEED TREATMENT FUNGICIDE  |  |  |  |
| Product Use Description:   | Seed Treatment  |  |  |  |
| Company:   | Chemtura Corporation<br>199 Benson Road<br>Middlebury, CT<br>06749<br>United States of America  |  |  |  |
|  | Telephone: 866-430-2775   |  |  |  |
| Emergency telephone:   | CHEMTREC: (24 hours) 800-424-9300   |  |  |  |
|  | Chemtura Corporation Emergency Response: CHEMTURA : 800-292-5898  |  |  |  |
|  | For additional emergency telephone numbers see section 16 of the Safety Data Sheet.   |  |  |  |
| Prepared by:   | Product Safety Department<br>(US) +1 866-430-2775   |  |  |  |
|  | +011-886-2-2712-5668 MSDSRequest@chemtura.com   |  |  |  |
|  |   |  |  |  |
| CTION 2. HAZARDS IDENT<br>Emergency Overview   | IFICATION   |  |  |  |
|  | IFICATION   |  |  |  |
| Emergency Overview CAUTION!  | Diour: tan Odour: slight  |  |  |  |
| Emergency Overview CAUTION!  |   |  |  |  |
| Emergency Overview         CAUTION!         Form: liquid       Cc                        | <u>olour</u> : tan <u>Odour</u> : slight<br>:<br>Harmful by inhalation.   |  |  |  |
| Emergency Overview         CAUTION!         Form: liquid       Cc         Hazard Summary | olour: tan       Odour: slight         :       Harmful by inhalation.         Toxic to aquatic organisms.         :         THIS MATERIAL IS HAZARDOUS UNDER THE CRITERIA OF         THE FEDERAL OSHA HAZARD COMMUNICATION STANDARD |  |  |  |

| Chemtura  | Material Safety D                                       | ata Sheet  |                        |
|---|---|--|------------------------|
| ITAVAX® - 34 SEE  | D TREATMENT FUNGIC                                      | IDE  |                        |
| sion: 1.3   | Revision Date: 07/                                      | 28/2010  | Print Date: 09/06/20   |
|   |   |  |                        |
| Potential Health Effects  |   |  |                        |
| Primary Routes of Entry   | : Skin contact  |  |                        |
| Filling Koules of Entry   | Eye contact<br>Inhalation                               |  |                        |
| Aggravated Medical<br>Condition   | : None known.   |  |                        |
| Inhalation  | : Harmful by inhalation.                                |  |                        |
| Skin  | : This product is not expected                          | to cause skin irritation.                          |                        |
| Eyes  | : May cause mild irritation of t                        | he eyes.   |                        |
| Ingestion   | : May cause:<br>- nausea<br>Gastrointestinal irritation |  |                        |
|   |   |  |                        |
| Environmental Effects<br>Environmental Effects<br>CTION 3. COMPOSITION/INI  | : Toxic to aquatic organisms.                           |  |                        |
| Environmental Effects   |   |  |                        |
| Environmental Effects   |   | CAS-No.  | Weight percent         |
| Environmental Effects<br>CTION 3. COMPOSITION/INI<br>Hazardous components   |   | CAS-No.<br>5234-68-4                               | Weight percent<br>34 % |
| Environmental Effects<br>TION 3. COMPOSITION/INI<br>Hazardous components<br>Component<br>carboxin<br>Ethylene glycol  | FORMATION ON INGREDIENTS                                | 5234-68-4<br>107-21-1                              |                        |
| Environmental Effects<br>TION 3. COMPOSITION/INI<br>Hazardous components<br>Component<br>carboxin<br>Ethylene glycol  |   | 5234-68-4<br>107-21-1                              | 34 %                   |
| Environmental Effects<br>TION 3. COMPOSITION/INI<br>Hazardous components<br>Component<br>carboxin<br>Ethylene glycol  | FORMATION ON INGREDIENTS                                | 5234-68-4<br>107-21-1                              | 34 %                   |
| Environmental Effects<br>TION 3. COMPOSITION/INI<br>Hazardous components<br>Component<br>carboxin<br>Ethylene glycol<br>Ingredients not precisel<br>TION 4. FIRST AID MEASU                         | FORMATION ON INGREDIENTS                                | 5234-68-4<br>107-21-1                              | 34 %                   |
| Environmental Effects<br>TION 3. COMPOSITION/INI<br>Hazardous components<br>Component<br>carboxin<br>Ethylene glycol<br>Ingredients not precise   | FORMATION ON INGREDIENTS                                | into fresh air.                                    | 34 %                   |
| Environmental Effects<br>TION 3. COMPOSITION/INI<br>Hazardous components<br>Component<br>carboxin<br>Ethylene glycol<br>Ingredients not precisel<br>TION 4. FIRST AID MEASU<br>First aid procedures | FORMATION ON INGREDIENTS                                | into fresh air.<br>inficant exposure.<br>hysician. | 34 %                   |



## VITAVAX® - 34 SEED TREATMENT FUNGICIDE

| sion: 1.3                                      | Revision Date: 07  | /28/2010   | Print Date: 09/06/   |
|--|--|--|----------------------|
|  |  |  |                      |
| Eye contact                                    | : Rinse thoroughly with plent<br>If eye irritation persists, con   | y of water, also under the eyelids<br>sult a specialist. | 3.                   |
| Ingestion                                      | Obtain medical attention.  |  | r.                   |
| Notes to physician                             |  |  |                      |
| Risks  | : Risk of product entering the   | lungs on vomiting after ingestion                        | n.                   |
| Treatment                                      | : Do not induce vomiting: cor  | ntains petroleum distillates and/o                       | r aromatic solvents. |
| TION 5. FIRE-FIGHTING MEA                      | SURES  |  |                      |
| Flammable properties                           |  |  |                      |
| Flash point                                    | : 221 °F (105 °C)<br>Method: Tag closed cup  |  |                      |
| Ignition temperature                           | : 640 °F (338 °C)  |  |                      |
| Fire fighting                                  |  |  |                      |
| Suitable extinguishing media                   | : Extinguishing media - large<br>Alcohol-resistant foam<br>(on small fires)<br>Dry chemical<br>Carbon dioxide (CO2)                            | fires  |                      |
| Unsuitable extinguishing media                 | : High volume water jet  |  |                      |
| Further information                            | : Fight fires from a safe dista<br>Move containers from fire a<br>Use water spray to cool und<br>Prevent fire extinguishing w<br>water system. | rea if possible.   | water or the ground  |
| Protective equipment and pro                   | ecautions for firefighters   |  |                      |
| Special protective equipment for fire-fighters | : In the event of fire, wear se<br>Full protective flameproof cl   | lf-contained breathing apparatus<br>lothing              |                      |
|  | 3 / 11   |  |                      |



Version: 1.3

Chemtura

Revision Date: 07/28/2010

Print Date: 09/06/2011

#### **SECTION 6. ACCIDENTAL RELEASE MEASURES** Personal precautions : Wear suitable protective clothing, gloves and eye/face protection. Ensure adequate ventilation. : Toxic to aquatic life. Environmental precautions Do not let product enter drains. Do not flush into surface water or sanitary sewer system. Methods for containment / : Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, Methods for cleaning up earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13). Large spills should be collected mechanically (remove by pumping) for disposal. Keep in suitable, closed containers for disposal. Ventilate the area. Additional advice : Keep in properly labelled containers. Dispose of rinse water as waste water. SECTION 7. HANDLING AND STORAGE Handling Handling procedures : Handle and open container with care. Use only in well-ventilated areas. In case of insufficient ventilation, wear suitable respiratory equipment. Wear suitable protective clothing, gloves and eye/face protection. Avoid inhalation, ingestion and contact with skin and eyes. Wash thoroughly after handling. Keep container closed when not in use. Storage Requirements for storage : Keep containers tightly closed in a dry, cool and well-ventilated place. areas and containers Keep only in the original container. Other data : Stable at normal ambient temperature and pressure. SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION **Exposure Guidelines** Components with workplace control parameters Components / CAS-No. Value / Basis / Control Further information Update parameters Ethylene glycol С 50 ppm 107-21-1 125 mg/m3 4/11 SAP 6.0 SDS Number: 00000003702





| on: 1.3                    |  | Revision Date: 07/   | 28/2010   | Print Date: 09/06/2                         |
|----------------------------|--|--|---|---|
|                            |  | OSHA P0  | I   |   |
|                            |  | 1989-01-19   |   |   |
|                            |  | C  | 100 mg/m3   |   |
|                            |  | ACGIH  |   |   |
|                            |  | 2007-01-01   |   |   |
| ngineering measures        |  |  |   |   |
| ngineering measures        | Ensi<br>vent                                       |  | nnot be returned to the   |   |
| ersonal protective equipme | ent  |  |   |   |
| ye protection              | : Safe   | ety glasses with side-shi  | elds  |   |
| and protection             | : Che  | Chemical resistant protective gloves   |   |   |
| kin and body protection    | Rem<br>To p<br>Rub                                 | <ul> <li>Long sleeved clothing<br/>Remove and wash contaminated clothing before re-use.</li> <li>To protect against splashes from pouring:<br/>Rubber or plastic boots<br/>Rubber or plastic apron</li> </ul>  |   |   |
| espiratory protection      | vapo   | respirator when perform<br>our of the product.<br>pirator with combination   |   | ng potential exposure to<br>ulate (EN 141). |
| lygiene measures           | Ensu<br>Wea<br>Do r<br>Avoi<br>Do r<br>Was<br>Keej | dle in accordance with g<br>ure adequate ventilation<br>ar suitable gloves and ey<br>not inhale aerosol.<br>Id contact with skin, eyes<br>not eat, drink or smoke w<br>sh thoroughly after handl<br>p working clothes separa<br>sh contaminated clothing | , especially in confined<br>re/face protection.<br>s and clothing.<br>when using this product<br>ing.<br>ately. | d areas.                                    |
|                            | Avoi<br>Do r<br>Was<br>Keej                        | d contact with skin, eyes<br>not eat, drink or smoke w<br>sh thoroughly after handl<br>p working clothes separa  | vhen using this produc<br>ing.<br>ately.  | :t.   |

#### Appearance

SAP 6.0

SDS Number: 00000003702

# Chemtura

# Material Safety Data Sheet

# **VITAVAX® - 34 SEED TREATMENT FUNGICIDE**

| Version: 1.3                          | Revision Date: 07/28/2010  | Print Date: 09/06/2011 |  |
|---------------------------------------|--|------------------------|--|
|                                       |  |                        |  |
| Form<br>Colour                        | : liquid<br>: tan  |                        |  |
| Odour                                 | : slight   |                        |  |
| Safety data                           |  |                        |  |
| Flash point                           | : 221 °F (105 °C)<br>Method: Tag closed cup  |                        |  |
| Ignition temperature                  | : 640 °F (338 °C)  |                        |  |
| рН                                    | : 7-9  |                        |  |
| Boiling point/boiling range           | : 216 °F (102 °C)  |                        |  |
| Density                               | : 1.16 g/cm3<br>at 68 °F (20 °C)   |                        |  |
| Water solubility                      | : Note: dispersible  |                        |  |
| Evaporation rate                      | : 0.11<br>Note: (Butyl acetate = 1)  |                        |  |
| SECTION 10. STABILITY AND R           | EACTIVITY  |                        |  |
| Conditions to avoid                   | : Remarks: Heat.   |                        |  |
| Materials to avoid                    | : Remarks: Strong acids and strong bases   |                        |  |
| Hazardous decomposition products      | : Note: Carbon monoxide<br>Carbon dioxide (CO2)<br>nitrogen oxides (NOx)<br>Sulphur oxides |                        |  |
| Hazardous reactions                   | : Hazardous polymerisation does not occur.   |                        |  |
| SECTION 11. TOXICOLOGICAL INFORMATION |  |                        |  |
| Acute oral toxicity                   | : LD50: > 5,000 mg/kg<br>Species: rat  |                        |  |
| Acute inhalation toxicity             | : LC50: > 0.74 mg/l<br>Exposure time: 4 h<br>Species: rat                                  |                        |  |
| SAP 6.0                               | 6 / 11 SDS Number: 000   | 000003702              |  |
|                                       |  |                        |  |



## **VITAVAX® - 34 SEED TREATMENT FUNGICIDE**

Version: 1.3 Revision Date: 07/28/2010 Print Date: 09/06/2011 Acute dermal toxicity : LD50: > 5,000 mg/kg Species: rabbit : Species: rabbit Skin irritation Result: No skin irritation Eye irritation : Species: rabbit Result: No eye irritation Sensitisation : Species: guinea pig Result: Did not cause sensitization on laboratory animals. **Toxicology Assessment** CMR effects : Carcinogenicity: negative Mutagenicity: negative Reproductive toxicity: negative **12. ECOLOGICAL INFORMATION** Toxicity to fish carboxin : LC50: 2.3 mg/l Exposure time: 96 h Species: Oncorhynchus mykiss (rainbow trout) flow-through test LC50: 3.6 mg/l Exposure time: 96 h Species: Lepomis macrochirus (Bluegill sunfish) flow-through test Toxicity to daphnia and other aquatic invertebrates. carboxin : EC50: > 57 mg/l Exposure time: 48 h Species: Daphnia magna (Water flea) flow-through test

Toxicity to algae

SAP 6.0

| Chemtura Material Safety Data Sheet                        |   |                      |  |  |
|--|---|----------------------|--|--|
| VITAVAX® - 34 SEED TREATMENT FUNGICIDE                     |   |                      |  |  |
| Version: 1.3   | Revision Date: 07/28/2010   | Print Date: 09/06/20 |  |  |
|  |   | 1 mil Dale. 00/00/20 |  |  |
| carboxin   | <ul> <li>EC50: 1.9 mg/l</li> <li>Exposure time: 96 h</li> <li>Species: Chlorella vulgaris (Fresh water algae)</li> <li>Growth inhibition</li> <li>EC50: 0.48 mg/l</li> <li>Exposure time: 120 h</li> </ul>  |                      |  |  |
| Toxicity to fish (Chronic toxicity                         |   |                      |  |  |
| carboxin   | : NOEC: 0.32 mg/l<br>Exposure time: 21 d<br>Species: Cyprinus carpio (Carp)   |                      |  |  |
| Toxicity to daphnia and other a                            | quatic invertebrates. (Chronic toxicity)  |                      |  |  |
| carboxin   | : NOEC: 0.32 mg/l   |                      |  |  |
|  | Exposure time: 17 d<br>Species: Daphnia magna (Water flea)  |                      |  |  |
| Biodegradability   |   |                      |  |  |
| carboxin   | : Remarks:<br>Not readily biodegradable.  |                      |  |  |
| Further information on ecolo<br>ECTION 13. DISPOSAL CONSID |   |                      |  |  |
| Further information  | <ul> <li>Dispose of waste material in compliance with all federal<br/>local regulations.</li> <li>Waste must be classified and labelled prior to recycling<br/>disposal.</li> <li>Pesticide wastes are toxic.</li> <li>Do not contaminate ponds, waterways or ditches with<br/>used container.</li> </ul> | g or                 |  |  |
| ECTION 14. TRANSPORT INFOR                                 | RMATION   |                      |  |  |
| DOT  |   |                      |  |  |
| UN-Number  | : 3082  |                      |  |  |
|  | Environmentally hazardous substances, liquic  | d, n.o.s.            |  |  |
|  | : (Carboxin)  |                      |  |  |
| Class  | ÷ 9   |                      |  |  |
| Packing group<br>ERG Code                                  | : III<br>: 171  |                      |  |  |
| AP 6.0   | 8 / 11 SDS Number: 00   | 0000003702           |  |  |
|  |   |                      |  |  |



# VITAVAX® - 34 SEED TREATMENT FUNGICIDE

| Version: 1.3                         | Revision Date: 07/28/2010  | Print Date: 09/06/2011 |
|--------------------------------------|--|------------------------|
| ΙΑΤΑ                                 |  |                        |
| <u>IATA</u><br>UN-Number             | : 3082   |                        |
|                                      | <ul> <li>Environmentally hazardous substance, liquidade</li> </ul>   | uid nos                |
| Description of the goods             | (Carboxin)   | au, 11.0.3.            |
| Class                                | : 9  |                        |
| Packing group                        | : []]  |                        |
|                                      | ·  |                        |
| <u>IMDG</u>                          |  |                        |
| UN-Number                            | : 3082   |                        |
| Description of the goods             | ENVIRONMENTALLY HAZARDOUS SUB  | STANCE, LIQUID, N.O.S. |
| 1 5                                  | (Carboxin)   | , , ,                  |
| Class                                | : 9  |                        |
| Packing group                        | :  |                        |
| EmS Letter 1                         | ÷ m<br>÷ F-A   |                        |
|                                      |  |                        |
| EmS Letter 2                         | S-F  |                        |
| Marine pollutant                     | : yes  |                        |
| 1                                    | Carboxin   |                        |
|                                      |  |                        |
| OSHA Hazards                         | This material is hazardous under the criteria of the For<br>Communication Standard 29CFR 1910.1200.        | ederal OSHA Hazard     |
| The components of this proc<br>REACH | luct are reported in the following inventories:  |                        |
| TSCA                                 | All substances in this product are exempt from TSCA<br>under FIFRA (Federal Insecticide Fungicide Rodantie |                        |
| SAP 6.0                              | 9 / 11 SDS Numbe   | r: 00000003702         |
|                                      |  |                        |
|                                      |  |                        |

|   | Material Safety Data Sheet  |                               |  |  |
|---|---|-------------------------------|--|--|
| Chemtura"   |   |                               |  |  |
|   |   |                               |  |  |
| VITAVAX® - 34 SEED TREATMENT FUNGICIDE                              |   |                               |  |  |
| Version: 1.3  | Revision Date: 07/28/2010   | Print Date: 09/06/2011        |  |  |
| DSL   | Note: This product is registered under the Pest C<br>therefore exempt from WHMIS supplier labeling a<br>read entire MSDS and product label for safety pre | and MSDS requirements. Please |  |  |
| SECTION 16. OTHER INI<br>Further information<br>HMIS Classification |   |                               |  |  |
|   | Flammability: 0<br>Reactivity: 0  |                               |  |  |
| NFPA Classification   | Fire Hazard: 0<br>Reactivity Hazard: 0  |                               |  |  |
|   |   |                               |  |  |
| Latin America:  | Brazil +52 113 7  | 11 91 44                      |  |  |

| Latin America: | Brazil              | +52 113 711 91 44   |
|----------------|---------------------|---------------------|
|                | All other countries | +44 (0)208 762 8322 |
| Mexico:        |                     | +52 555 004 87 63   |

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

SAP 6.0



# **VITAVAX® - 34 SEED TREATMENT FUNGICIDE**

Version: 1.3

Revision Date: 07/28/2010

Print Date: 09/06/2011

SAP 6.0

SDS Number: 00000003702