

# SAFETY DATA SHEET

ANGUS CHEMICAL COMPANY

Product name : CORRGUARD<sup>™</sup> -75, Amino Alcohol

Issue Date: 11/02/2017 Print Date: 11/03/2017

ANGUS CHEMICAL COMPANY encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

# **1. PRODUCT AND COMPANY IDENTIFICATION**

| Product name<br>Manufacturer or supplier's deta              | CORRGUARD™ -75, Amino Alcohol<br>ails                 |
|--|---|
| Company name of supplier                                     | ANGUS CHEMICAL COMPANY                                |
| Address  | 1500 E. LAKE COOK ROAD<br>Buffalo Grove IL 60089-6553 |
| Customer Information<br>Number                               | +1-847-808-3711                                       |
| E-mail address   | NAR_CC@ANGUS.COM                                      |
|  |   |
| Emergency telephone<br>number                                | 800-424-9300  |
| Emergency telephone<br>number<br>Recommended use of the chem | 800-424-9300<br>nical and restrictions on use         |

# 2. HAZARDS IDENTIFICATION

| GHS Classification |    |
|--------------------|----|
| Skin irritation    | Ca |

Category 2

Category 1

Serious eye damage

| Hazard pictograms        |   |
|--------------------------|---|
| Signal word              | Danger  |
| Hazard statements        | Causes skin irritation.   |
|                          | Causes serious eye damage.  |
| Precautionary statements | <ul> <li>Prevention:</li> <li>Wash skin thoroughly after handling.</li> <li>Wear protective gloves/ eye protection/ face protection.</li> <li>Response:</li> <li>IF ON SKIN: Wash with plenty of soap and water.</li> <li>IF IN EYES: Rinse cautiously with water for several minutes.</li> <li>Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician.</li> <li>If skin irritation occurs: Get medical advice/ attention.</li> <li>Take off contaminated clothing and wash before reuse.</li> </ul> |

# GHS Label elements, including precautionary statements

#### Other hazards

None known.

# **3. COMPOSITION/INFORMATION ON INGREDIENTS**

This product is a mixture.

# Components

| Chemical Name                     | CAS-No.    | Concentration (% w/w) |
|-----------------------------------|------------|-----------------------|
| 2-Amino-2-methyl-1-propanol       | 124-68-5   | <= 75.0 %             |
| Water                             | 7732-18-5  | >= 20.0 %             |
| 2-Methylamino-2-methyl-1-propanol | 27646-80-6 | 5.0%                  |

#### **4. FIRST AID MEASURES**

| If inhaled              | Move person to fresh air; if effects occur, consult a physician.   |
|-------------------------|--|
| In case of skin contact | Immediately flush skin with plenty of water for at least 15<br>minutes while removing contaminated clothing. Seek medical<br>attention if symptoms occur or irritation persists. Wash<br>clothing before reuse.<br>Suitable emergency safety shower facility should be<br>immediately available. |
| In case of eye contact  | Wash immediately and continuously with flowing water for at  |

|   | least 30 minutes. Remove contact lenses after the first 5<br>minutes and continue washing. Obtain prompt medical<br>consultation, preferably from an ophthalmologist.<br>Suitable emergency eye wash facility should be immediately<br>available.   |
|---|---|
| If swallowed  | Seek medical attention immediately.<br>Do not induce vomiting. Give one cup (8 ounces or 240 ml) of<br>water or milk if available and transport to a medical facility. Do<br>not give anything by mouth unless the person is fully<br>conscious.  |
| Most important symptoms<br>and effects, both acute and<br>delayed | Aside from the information found under Description of first aid<br>measures (above) and Indication of immediate medical<br>attention and special treatment needed (below), any additional<br>important symptoms and effects are described in Section 11:<br>Toxicology Information.   |
| Protection of first-aiders  | First Aid responders should pay attention to self-protection<br>and use the recommended protective clothing (chemical<br>resistant gloves, splash protection).<br>If potential for exposure exists refer to Section 8 for specific<br>personal protective equipment.  |
| Notes to physician  | Chemical eye burns may require extended irrigation. Obtain<br>prompt consultation, preferably from an ophthalmologist.<br>If burn is present, treat as any thermal burn, after<br>decontamination.<br>Treatment of exposure should be directed at the control of<br>symptoms and the clinical condition of the patient.<br>No specific antidote.<br>Due to irritant properties, swallowing may result in<br>burns/ulceration of mouth, stomach and lower gastrointestinal<br>tract with subsequent stricture. Aspiration of vomitus may<br>cause lung injury. Suggest endotracheal/esophageal control if<br>lavage is done. |

# **5. FIREFIGHTING MEASURES**

| Suitable extinguishing media         | To extinguish combustible residues of this product use water<br>fog, carbon dioxide, dry chemical or foam.<br>Alcohol resistant foams (ATC type) are preferred. General<br>purpose synthetic foams (including AFFF) or protein foams<br>may function, but will be less effective. |
|--------------------------------------|---|
| Specific hazards during firefighting | This material will not burn until the water has evaporated.<br>Residue can burn.  |
| Hazardous combustion<br>products     | Under fire conditions some components of this product may<br>decompose. The smoke may contain unidentified toxic and/or<br>irritating compounds.<br>Combustion products may include and are not limited to:<br>Carbon dioxide.<br>Carbon monoxide.<br>Nitrogen oxides.            |
| Further information                  | Keep people away. Isolate fire and deny unnecessary entry.  |

|  | To extinguish combustible residues of this product use water<br>fog, carbon dioxide, dry chemical or foam.<br>Burning liquids may be moved by flushing with water to<br>protect personnel and minimize property damage.<br>Burning liquids may be extinguished by dilution with water.  |
|--|---|
| Special protective equipment<br>for firefighters | <ul> <li>Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves).</li> <li>Avoid contact with this material during fire fighting operations.</li> <li>If contact is likely, change to full chemical resistant fire fighting clothing with self-contained breathing apparatus. If this is not available, wear full chemical resistant clothing with self-contained breathing apparatus and fight fire from a remote location.</li> <li>For protective equipment in post-fire or non-fire clean-up situations, refer to the relevant sections.</li> </ul> |

# 6. ACCIDENTAL RELEASE MEASURES

| Personal precautions,<br>protective equipment and<br>emergency procedures | <ul> <li>Keep upwind of spill.</li> <li>Ventilate area of leak or spill.</li> <li>No smoking in area.</li> <li>Only trained and properly protected personnel must be involved in clean-up operations.</li> <li>Evacuate area.</li> <li>Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.</li> <li>Refer to section 7, Handling, for additional precautionary measures.</li> </ul> |
|---|--|
| Environmental precautions   | Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.  |
| Methods and materials for<br>containment and cleaning up                  | Contain spilled material if possible.<br>Collect in suitable and properly labeled containers.<br>See Section 13, Disposal Considerations, for additional<br>information.   |

# 7. HANDLING AND STORAGE

| Advice on safe handling | Spills of these organic materials on hot fibrous insulations may lead to lowering of the autoignition temperatures possibly resulting in spontaneous combustion.  |
|-------------------------|---|
|                         | Do not swallow.<br>Wash thoroughly after handling.<br>Avoid breathing vapor or mist.<br>Use with adequate ventilation.<br>Do not get in eyes, on skin, on clothing.<br>Keep container closed.<br>See Section 8, EXPOSURE CONTROLS AND PERSONAL<br>PROTECTION. |

| formation of carbonate salts.<br>Store in a cool, dry place.<br>Store in original container.<br>Do not store in:<br>Zinc.<br>Aluminum.<br>Copper.<br>Copper alloys.<br>Brass.<br>Galvanized containers |
|--|
| Galvanized containers.   |

# 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

# Components with workplace control parameters

Contains no substances with occupational exposure limit values.

| Engineering measures          | Local exhaust ventilation may be necessary for some<br>operations.<br>Use local exhaust ventilation, or other engineering controls to<br>maintain airborne levels below exposure limit requirements or<br>guidelines. If there are no applicable exposure limit<br>requirements or guidelines, general ventilation should be<br>sufficient for most operations.  |
|-------------------------------|--|
| Personal protective equipment |  |
| Respiratory protection        | Respiratory protection should be worn when there is a<br>potential to exceed the exposure limit requirements or<br>guidelines. If there are no applicable exposure limit<br>requirements or guidelines, wear respiratory protection when<br>adverse effects, such as respiratory irritation or discomfort<br>have been experienced, or where indicated by your risk<br>assessment process.<br>For most conditions, no respiratory protection should be<br>needed; however, if material is heated or sprayed, use an<br>approved air-purifying respirator.<br>The following should be effective types of air-purifying<br>respirators:<br>Organic vapor cartridge with a particulate pre-filter, type AP2.  |
| Hand protection               |  |
|                               | Use gloves chemically resistant to this material. Examples of<br>preferred glove barrier materials include: Polyethylene.<br>Chlorinated polyethylene. Ethyl vinyl alcohol laminate<br>("EVAL"). Examples of acceptable glove barrier materials<br>include: Viton. Butyl rubber. Neoprene. Natural rubber<br>("latex"). Polyvinyl chloride ("PVC" or "vinyl").<br>Nitrile/butadiene rubber ("nitrile" or "NBR"). Avoid gloves<br>made of: Polyvinyl alcohol ("PVA"). NOTICE: The selection of<br>a specific glove for a particular application and duration of<br>use in a workplace should also take into account all relevant<br>workplace factors such as, but not limited to: Other chemicals<br>which may be handled, physical requirements (cut/puncture<br>protection, dexterity, thermal protection), potential body |

|                          | reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.   |
|--------------------------|--|
| Eye protection           | Use chemical goggles.  |
| Skin and body protection | Use protective clothing chemically resistant to this material.<br>Selection of specific items such as face shield, boots, apron,<br>or full body suit will depend on the task. |

# 9. PHYSICAL AND CHEMICAL PROPERTIES

| Appearance                          | Liquid.  |
|-------------------------------------|--|
| Color                               | Colorless  |
| Odor                                | Amine.   |
| Odor Threshold                      | No test data available   |
| рН                                  | 10.3<br>Method: Literature<br>1% aqueous solution.               |
| Freezing point                      | -48 °C (-54 °F)<br>Method: Literature                            |
| Melting point/range                 | -48 °C (-54 °F)<br>Method: Literature                            |
| Boiling point/boiling range         | 100 - 165 °C (212 - 329 °F)<br>Method: Literature                |
| Flash point                         | > 132.2 °C (> 270.0 °F)  |
|                                     | Method: Setaflash Closed Cup ASTM D3828<br>Test Type: closed cup |
| Evaporation rate                    | No test data available   |
| Flammability (solid, gas)           | No data available.   |
| Upper explosion limit               | No test data available   |
| Lower explosion limit               | No test data available   |
| Vapor Pressure                      | 0.34 mmHg<br>(20 °C)<br>Method: Measured<br>Anhydrous            |
| Relative Vapor Density (air =<br>1) | 3<br>Method: Literature  |
| Relative density                    | 0.968 (25 °C)  |

|  | Method: Literature   |
|--|--|
| Water solubility                           | soluble in water   |
| Partition coefficient: n-<br>octanol/water | log Pow: -0.63 (20 °C)<br>Method: OECD Test Guideline 107 or Equivalent<br>GLP: yes<br>Bioconcentration potential is low (BCF < 100 or Log Pow < 3). |
| Auto-ignition temperature                  | 438 °C<br>Method: Literature   |
| Decomposition temperature                  | No test data available   |
| Viscosity<br>Viscosity, dynamic            | 80 mPa.s (27 °C)<br>Method: Literature   |
| Viscosity, kinematic                       | No test data available   |
| Explosive properties                       | No data available.   |
| Oxidizing properties                       | No data available.   |
| Molecular weight                           | No test data available   |

NOTE: The physical data presented above are typical values and should not be construed as a specification.

| 10. STABILITY AND REACTIVITY | 10. | STAB | LITY | AND | REACTIVITY | Y |
|------------------------------|-----|------|------|-----|------------|---|
|------------------------------|-----|------|------|-----|------------|---|

| Reactivity             | No dangerous reaction known under conditions of normal use.   |
|------------------------|---|
| Chemical stability     | Stable under recommended storage conditions. See Storage, Section 7.  |
| Conditions to avoid    | Exposure to elevated temperatures can cause product to decompose.<br>Product absorbs carbon dioxide from the air.<br>Reaction with carbon dioxide may form carbonate salts.   |
| Incompatible materials | Avoid contact with:<br>Strong acids.<br>Strong oxidizers.<br>Avoid contact with metals such as:<br>Zinc.<br>Galvanized metals.<br>Aluminum.<br>Copper.<br>Copper alloys.<br>Brass.<br>Avoid unintended contact with:<br>Halogenated hydrocarbons. |

Hazardous decomposition products

Decomposition products depend upon temperature, air supply and the presence of other materials.

# **11. TOXICOLOGICAL INFORMATION**

Toxicological information on this product or its components appear in this section when such data is available.

| Acute toxicity                                    |  |
|---|--|
| Product:<br>Acute oral toxicity                   | Remarks: Low toxicity if swallowed.<br>Small amounts swallowed incidentally as a result of normal  |
|   | handling operations are not likely to cause injury; however,<br>swallowing larger amounts may cause injury.<br>Swallowing may result in irritation or burns of the mouth,<br>throat, and gastrointestinal tract. |
|   | LD50 (Rat, male): 2,900 mg/kg<br>Method: OECD 401 or equivalent  |
|   | LD50 (Mouse): 2,150 mg/kg  |
| Acute inhalation toxicity                         | Remarks: At room temperature, exposure to vapor is minimal<br>due to low volatility.<br>Vapor from heated material or mist may cause respiratory<br>irritation.  |
|   | Remarks: The LC50 has not been determined.   |
| Acute dermal toxicity                             | Remarks: Prolonged skin contact is unlikely to result in absorption of harmful amounts.  |
|   | LD50<br>(Rabbit, male and female): > 2,000 mg/kg   |
|   | Symptoms: No deaths occurred at this concentration.<br>Assessment: The substance or mixture has no acute dermal toxicity   |
| <u>Components:</u><br>2-Amino-2-methyl-1-propanol |  |
| Acute oral toxicity                               | LD50 (Rat, male): 2,900 mg/kg<br>Remarks: Swallowing may result in irritation or burns of the<br>mouth, throat, and gastrointestinal tract.  |
| Acute inhalation toxicity                         | Remarks: The LC50 has not been determined.   |
| Acute dermal toxicity                             | LD50 (Rabbit, male and female): > 2,000 mg/kg<br>Symptoms: No deaths occurred at this concentration.<br>Assessment: The substance or mixture has no acute dermal<br>toxicity                                     |

# Skin corrosion/irritation

# Product:

#### **Result: Skin irritation**

Remarks: Brief contact may cause severe skin irritation with pain and local redness. Prolonged contact may cause severe skin burns. Symptoms may include pain, severe local redness, swelling, and tissue damage.

Remarks: Not classified as corrosive to the skin according to DOT guidelines.

# Components:

# 2-Amino-2-methyl-1-propanol

Result: Skin irritation

Remarks: Brief contact may cause severe skin irritation with pain and local redness. Prolonged contact may cause severe skin burns. Symptoms may include pain, severe local redness, swelling, and tissue damage.

Remarks: Not classified as corrosive to the skin according to DOT guidelines.

# Serious eye damage/eye irritation

#### Product:

Result: Corrosive Remarks: May cause severe irritation with corneal injury which may result in permanent impairment of vision, even blindness. Chemical burns may occur.

# Components:

# 2-Amino-2-methyl-1-propanol

Result: Corrosive Remarks: May cause severe irritation with corneal injury which may result in permanent impairment of vision, even blindness. Chemical burns may occur.

# Respiratory or skin sensitization

# Product:

Remarks: For skin sensitization: Did not cause allergic skin reactions when tested in guinea pigs.

Remarks: For respiratory sensitization: No relevant data found.

# Components:

#### 2-Amino-2-methyl-1-propanol

Assessment: Does not cause skin sensitization. Remarks: For skin sensitization: Did not cause allergic skin reactions when tested in guinea pigs.

Remarks: For respiratory sensitization: No relevant data found.

# Carcinogenicity

## Product:

No relevant data found.

## Components:

2-Amino-2-methyl-1-propanol

No relevant data found.

| IARC | No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. |
|------|---|
| OSHA | No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.             |
| NTP  | No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.                 |

#### Teratogenicity

#### Product

In a screening study in rats, 2-amino-2-methyl-1-propanol hydrochloride salt was toxic to the fetus when administered at high oral doses. However, this material did not cause birth defects or any other effects on the fetus when high doses were administered dermally, the most likely route of exposure, in a definitive rat developmental toxicity study.

#### Components:

#### 2-Amino-2-methyl-1-propanol

In a screening study in rats, 2-amino-2-methyl-1-propanol hydrochloride salt was toxic to the fetus when administered at high oral doses. However, this material did not cause birth defects or any other effects on the fetus when high doses were administered dermally, the most likely route of exposure, in a definitive rat developmental toxicity study.

#### Mutagenicity

#### Product

Animal genetic toxicity studies were negative. In vitro genetic toxicity studies were negative.

#### Components:

#### 2-Amino-2-methyl-1-propanol

Animal genetic toxicity studies were negative. In vitro genetic toxicity studies were negative.

#### Reproductive toxicity

# Product:

In animal studies, did not interfere with reproduction.

# Components:

# 2-Amino-2-methyl-1-propanol

In animal studies, did not interfere with reproduction.

## STOT - single exposure

#### Product:

Assessment: Evaluation of available data suggests that this material is not an STOT-SE toxicant.

#### Components:

#### 2-Amino-2-methyl-1-propanol

Assessment: Evaluation of available data suggests that this material is not an STOT-SE toxicant.

#### **Repeated dose toxicity**

#### Product:

Remarks: In animals, effects have been reported on the following organs: Liver.

#### Components:

#### 2-Amino-2-methyl-1-propanol

Remarks: In animals, effects have been reported on the following organs: Liver.

#### Aspiration toxicity

Product: Aspiration Hazard

Based on physical properties, not likely to be an aspiration hazard.

#### <u>Components:</u> 2-Amino-2-methyl-1-propanol

Based on physical properties, not likely to be an aspiration hazard.

# **12. ECOLOGICAL INFORMATION**

#### Ecotoxicity

# Product:

Toxicity to fish

Remarks: Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 >100 mg/L in the most sensitive species tested). May increase pH of aquatic systems to > pH 10 which may be toxic to aquatic organisms.

LC50 (Lepomis macrochirus (Bluegill sunfish)): 190 mg/l

|   | Exposure time: 96.0 h<br>Test Type: static test<br>Method: OECD Test Guideline 203 or Equivalent   |
|---|--|
|   | LC50 (European plaice (Pleuronectes platessa).): 184 mg/l<br>Exposure time: 96.0 h<br>Test Type: semi-static test<br>Method: OECD Test Guideline 203 or Equivalent   |
|   | LC50 (Leuciscus idus (Golden orfe)): 331 mg/l<br>Exposure time: 48.0 h<br>Test Type: static test<br>Method: OECD Test Guideline 203 or Equivalent  |
| Toxicity to daphnia and other aquatic invertebrates | LC50 (Crangon crangon (shrimp)): 179.00 mg/l<br>Exposure time: 96.0 h<br>Test Type: semi-static test<br>Method: OECD Test Guideline 202 or Equivalent  |
|   | LC50 (Daphnia magna (Water flea)): 193.00 mg/l<br>Exposure time: 48.0 h<br>Test Type: static test<br>Method: OECD Test Guideline 202 or Equivalent   |
| Toxicity to algae                                   | EyC50 (alga Scenedesmus sp.): 565.5 mg/l<br>End point: Biomass<br>Exposure time: 72 h<br>Test Type: static test<br>Method: OECD Test Guideline 201 or Equivalent   |
| Toxicity to bacteria                                | EC50 (activated sludge): 342.9 mg/l<br>Exposure time: 3 h<br>Test Type: static test<br>Method: OECD 209 Test   |
| <u>Components:</u><br>2-Amino-2-methyl-1-propanol   |  |
| Toxicity to fish                                    | Remarks: Material is practically non-toxic to aquatic<br>organisms on an acute basis (LC50/EC50/EL50/LL50 >100<br>mg/L in the most sensitive species tested).<br>May increase pH of aquatic systems to > pH 10 which may be<br>toxic to aquatic organisms. |
|   | LC50 (Lepomis macrochirus (Bluegill sunfish)): 190 mg/l<br>Exposure time: 96.0 h<br>Test Type: static test<br>Method: OECD Test Guideline 203 or Equivalent  |
|   | LC50 (European plaice (Pleuronectes platessa).): 184 mg/l<br>Exposure time: 96.0 h<br>Test Type: semi-static test<br>Method: OECD Test Guideline 203 or Equivalent   |
|   | LC50 (Leuciscus idus (Golden orfe)): 331 mg/l<br>Exposure time: 48.0 h<br>Test Type: static test<br>Method: OECD Test Guideline 203 or Equivalent  |
|   |  |

| Toxicity to daphnia and other aquatic invertebrates | LC50 (Crangon crangon (shrimp)): 179.00 mg/l<br>Exposure time: 96.0 h<br>Test Type: semi-static test<br>Method: OECD Test Guideline 202 or Equivalent            |
|---|--|
|   | LC50 (Daphnia magna (Water flea)): 193.00 mg/l<br>Exposure time: 48.0 h<br>Test Type: static test<br>Method: OECD Test Guideline 202 or Equivalent               |
| Toxicity to algae                                   | EyC50 (alga Scenedesmus sp.): 565.5 mg/l<br>End point: Biomass<br>Exposure time: 72 h<br>Test Type: static test<br>Method: OECD Test Guideline 201 or Equivalent |
| Toxicity to bacteria                                | EC50 (activated sludge): 342.9 mg/l<br>End point: Respiration rates.<br>Exposure time: 3 h<br>Test Type: static test<br>Method: OECD 209 Test                    |
| Persistence and degradability                       |  |
| Product:  |  |
| Biodegradability                                    | Result: Readily biodegradable<br>Remarks: Material is readily biodegradable. Passes OECD<br>test(s) for ready biodegradability.                                  |
|   | Biodegradation: 89.3 %<br>Exposure time: 28 d<br>Method: OECD Test Guideline 301F or Equivalent<br>Remarks: 10-day Window: Pass                                  |
| Chemical Oxygen Demand (COD)                        | 2.410 mg/mg Method: Estimated.   |
| ThOD  | 2.690 mg/mg  |
|   | Method: Estimated.   |
| Photodegradation                                    | Sensitiser: OH radicals<br>Rate constant: Degradation half life: 0.42 d<br>Method: Estimated.  |
| <u>Components:</u><br>2-Amino-2-methyl-1-propanol   |  |
| Biodegradability                                    | Remarks: Material is readily biodegradable. Passes OECD test(s) for ready biodegradability.  |
|   | Result: Readily biodegradable<br>Biodegradation: 89.3 %<br>Exposure time: 28 d<br>Method: OECD Test Guideline 301F or Equivalent<br>Remarks: 10-day Window: Pass |
|   |  |

| Chemical Oxygen Demand<br>(COD)                   | 2.410 mg/mg<br>Method: Estimated.  |
|---|--|
| ThOD  | 2.690 mg/mg<br>Method: Estimated.  |
| Photodegradation                                  | Sensitiser: OH radicals<br>Rate constant: Degradation half life: 0.42 d<br>Method: Estimated.  |
| Bioaccumulative potential                         |  |
| Product:  |  |
| Bioaccumulation                                   | Species: Fish.<br>Bioconcentration factor (BCF): < 1<br>Method: Measured   |
| Partition coefficient: n-<br>octanol/water        | log Pow: -0.63 (20 °C)<br>Method: OECD Test Guideline 107 or Equivalent<br>GLP: yes<br>Remarks: Bioconcentration potential is low (BCF < 100 or Log<br>Pow < 3). |
| <u>Components:</u><br>2-Amino-2-methyl-1-propanol |  |
| Bioaccumulation                                   | Species: Fish.<br>Bioconcentration factor (BCF): < 1<br>Method: Measured   |
| Partition coefficient: n-<br>octanol/water        | log Pow: -0.63<br>Method: OECD Test Guideline 107 or Equivalent<br>Remarks: Bioconcentration potential is low (BCF < 100 or Log<br>Pow < 3).                     |
| Mobility in soil                                  |  |
| Product:  |  |
| Distribution among<br>environmental compartments  | Koc: 18<br>Method: Estimated.<br>Remarks: Potential for mobility in soil is very high (Koc<br>between 0 and 50).   |
| Components:<br>2-Amino-2-methyl-1-propanol        |  |
|   |  |
| Distribution among<br>environmental compartments  | Koc: 18<br>Method: Estimated.<br>Remarks: Potential for mobility in soil is very high (Koc<br>between 0 and 50).   |
| Other adverse effects                             |  |
| Product:  |  |
|   |  |

| Ozone-Depletion Potential                         | Regulation: 40 CFR Protection of Environment; Part 82<br>Protection of Stratospheric Ozone - CAA Section 602 Class I<br>Substances<br>Remarks: This product neither contains, nor was<br>manufactured with a Class I or Class II ODS as defined by the<br>U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A +<br>B).   |
|---|---|
| <u>Components:</u><br>2-Amino-2-methyl-1-propanol |   |
| Results of PBT and vPvB<br>assessment             | This substance is readily biodegradable and thus is not<br>considered persistent or very persistent (P or vP). This<br>substance has a low potential to bioaccumulate due to low<br>affinity for octanol and high water solubility so is not<br>considered bioaccumulative or very bioaccumulative (B or vB).<br>This substance is not classified as mutagenic, carcinogenic or<br>reproductive toxicant to mammalian species, and the values<br>are much higher than the threshold for toxicity to aquatic<br>species; thus is not considered toxic (T). |

# **13. DISPOSAL CONSIDERATIONS**

| Disposal methods    |  |
|---------------------|--|
| Waste from residues | <ul> <li>DO NOT DUMP INTO ANY SEWERS, ON THE GROUND,<br/>OR INTO ANY BODY OF WATER.</li> <li>All disposal practices must be in compliance with all Federal,<br/>State/Provincial and local laws and regulations.</li> <li>Regulations may vary in different locations.</li> <li>Waste characterizations and compliance with applicable laws<br/>are the responsibility solely of the waste generator.</li> <li>THE INFORMATION PRESENTED HERE PERTAINS ONLY<br/>TO THE PRODUCT AS SHIPPED IN ITS INTENDED<br/>CONDITION AS DESCRIBED IN MSDS SECTION:<br/>Composition Information.</li> <li>FOR UNUSED &amp; UNCONTAMINATED PRODUCT, the<br/>preferred options include sending to a licensed, permitted:<br/>Incinerator or other thermal destruction device.</li> <li>Landfill.</li> <li>ANGUS HAS NO CONTROL OVER THE MANAGEMENT<br/>PRACTICES OR MANUFACTURING PROCESSES OF<br/>PARTIES HANDLING OR USING THIS MATERIAL.</li> </ul> |

# **14. TRANSPORT INFORMATION**

# International Regulation

# IATA-DGR

Not regulated as a dangerous good

# IMDG-Code

Not regulated as a dangerous good

# Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

# **National Regulations**

# 49 CFR (DOT) – NON BULK

Not regulated as a dangerous good

# 49 CFR (DOT) - BULK

Not regulated as a dangerous good

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

# **15. REGULATORY INFORMATION**

| OSHA Hazards           | This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. |  |
|------------------------|--|--|
|                        | Moderate skin irritant   |  |
| EPCRA - Emergency Plan | ning and Community Right-to-Know Act   |  |

# CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

#### SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

| SARA 311/312 Hazards | Acute Health Hazard<br>Chronic Health Hazard  |
|----------------------|---|
| SARA 302             | No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.   |
| SARA 313             | This material does not contain any chemical components with<br>known CAS numbers that exceed the threshold (De Minimis)<br>reporting levels established by SARA Title III, Section 313. |

# Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489).

#### **Clean Water Act**

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

## **US State Regulations**

#### Massachusetts Right To Know

Cas No.

Massachusetts Right to Know List of Chemicals and Hazard Classifications

Component

124-68-5

# 2-Amino-2-methyl-1-propanol

# Pennsylvania Right To Know

The following chemicals are listed because of the additional requirements of Pennsylvania law:

 Cas No.
 Component

 124-68-5
 2-Amino-2-r

2-Amino-2-methyl-1-propanol

#### New Jersey Right To Know

The following chemicals are listed because of the additional requirements of New Jersey law:

| Cas No.  | Component                   |  |
|----------|-----------------------------|--|
| 124-68-5 | 2-Amino-2-methyl-1-propanol |  |

# California Prop. 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

# The components of this product are reported in the following inventories:

United States TSCA Inventory All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.30

#### **Remarks:**

2-Methylamino-2-methyl-1-propanol is considered an impurity in this product and is therefore not required to be specifically listed on certain chemical control inventories such as TSCA.

# **16. OTHER INFORMATION**



#### HMIS III:

| HEALTH          | 3 |
|-----------------|---|
| FLAMMABILITY    | 1 |
| PHYSICAL HAZARD | 0 |

0 = not significant, 1 = Slight,

2 = Moderate, 3 = High

4 = Extreme, \* = Chronic

| Revision Date          | 11/02/2017   |
|------------------------|--------------|
| Version                | 0.0          |
| Identification Number: | 000040000150 |

US / EN

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.

# Full text of other abbreviations

(Q)SAR - (Quantitative) Structure Activity Relationship; ASTM - American Society for the Testing of Materials; bw - Body weight; DIN - Standard of the German Institute for Standardisation; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying

Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISO - International Organisation for Standardization; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL -International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative; DSL - Domestic Substances List (Canada); KECI - Korea Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States): AICS - Australian Inventory of Chemical Substances; IECSC - Inventory of Existing Chemical Substances in China; ENCS - Existing and New Chemical Substances (Japan); ISHL - Industrial Safety and Health Law (Japan); PICCS - Philippines Inventory of Chemicals and Chemical Substances; NZIoC -New Zealand Inventory of Chemicals; TCSI - Taiwan Chemical Substance Inventory; CERCLA -Comprehensive Environmental Response, Compensation, and Liability Act; DOT - Department of Transportation; EHS - Extremely Hazardous Substance; HMIS - Hazardous Materials Identification System; MSHA - Mine Safety and Health Administration; NFPA - National Fire Protection Association; RCRA - Resource Conservation and Recovery Act; RQ - Reportable Quantity; SARA - Superfund Amendments and Reauthorization Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; GLP -Good Laboratory Practice; ERG - Emergency Response Guide; NTP - National Toxicology Program; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods