SECTION 1. IDENTIFICATION

Product name : PROCURE® 480SC
Product code : 400000004030

Manufacturer or supplier's details
Company: MacDermid Agricultural Solutions, Inc
245 Freight St
Waterbury, CT
United States of America
06702
Telephone : +1 800 423 8569

Prepared by sds.request@arysta.com

Further information for the safety data sheet:
sds.request@arysta.com

1.4 Emergency telephone number

Emergency telephone number: Agriphar Crop Solutions: +1 800 423 8569(24 hours) 800-424-9300
For additional emergency telephone numbers see section 16 of the Safety Data Sheet.

Recommended use of the chemical and restrictions on use

Recommended use : Fungicide
Restrictions on use : Agriculture, For professional users only.

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Specific target organ toxicity - repeated exposure (Oral) : Category 2 (Blood)
Acute aquatic toxicity : Category 1
Chronic aquatic toxicity : Category 2

GHS Label element
Hazard pictograms:

Signal word: Warning

Hazard statements:
H373 May cause damage to organs (Blood) through prolonged or repeated exposure if swallowed.
H400 Very toxic to aquatic life.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements:
Prevention:
P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P273 Avoid release to the environment.
Response:
P314 Get medical advice/ attention if you feel unwell.
P391 Collect spillage.
Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards:
None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture: Mixture
Chemical nature: Fungicide
Triflumizole - 4 lbs per gallon

Hazardous components

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No.</th>
<th>Concentration (% w/w)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1H-IMIDAZOLE, 1-((4-CHLORO-2-(TRIFLUO</td>
<td>68694-11-1</td>
<td>&gt;= 30 - &lt; 50</td>
</tr>
</tbody>
</table>

SECTION 4. FIRST AID MEASURES

If inhaled:
If breathed in, move person into fresh air.
Give oxygen or artificial respiration if needed.
Consult a physician after significant exposure.

In case of skin contact:
If on clothes, remove clothes.
Wash off immediately with plenty of water for at least 15 minutes.
If skin irritation occurs, seek medical advice/attention.
Wash contaminated clothing before re-use.
Destroy contaminated shoes.

In case of eye contact:
Rinse immediately with plenty of water, also under the eyelids.
for at least 15 minutes.
Get medical attention if irritation develops and persists.

If swallowed : Do NOT induce vomiting.
Give small amounts of water to drink.
Call a physician or poison control centre immediately.
Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed : Symptoms may be delayed.
May cause damage to organs through prolonged or repeated exposure.

Notes to physician : The first aid procedure should be established in consultation with the doctor responsible for industrial medicine.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Extinguishing media - large fires
Alcohol-resistant foam
(on small fires)
Carbon dioxide (CO2)
Dry chemical

Unsuitable extinguishing media : Water spray jet

Specific hazards during firefighting : Burning produces noxious and toxic fumes.
Thermal decomposition can lead to release of irritating gases and vapours.

Further information : Fight fire with normal precautions from a reasonable distance.
Keep away from fire, sparks and heated surfaces.
Use water spray to cool unopened containers.
Prevent fire extinguishing water from contaminating surface water or the ground water system.

Special protective equipment for firefighters : Body covering protective clothing, full "turn-out" gear.
Self-contained breathing apparatus (EN 133)

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Evacuate personnel to safe areas.
Ensure adequate ventilation.
Avoid contact with skin and eyes.
Wear suitable protective clothing, gloves and eye/face protection.
Keep in properly labelled containers.
Dispose of rinse water as waste water.

Environmental precautions : Toxic to aquatic life.
Do not allow material to contaminate ground water system.
Prevent product from entering drains.
Avoid release to the environment.
Methods and materials for containment and cleaning up: Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Shovel into suitable container for disposal. Large spills should be collected mechanically (remove by pumping) for disposal. Ventilate the area.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling: Handle and open container with care. Protect from contamination. Use only in well-ventilated areas. In case of insufficient ventilation, wear suitable respiratory equipment. Avoid inhalation, ingestion and contact with skin and eyes. Wear suitable protective clothing, gloves and eye/face protection. Wash thoroughly after handling. Keep container closed when not in use. Allergic reactions may develop after inhalation of low concentrations, also several hours after exposure. Regular medical checks, including lung function, are recommended for long term and repeated use of isocyanates.

Conditions for safe storage: Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters: Contains no substances with occupational exposure limit values.

Hazardous components without workplace control parameters:

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1H-MIDAZOLE, 1-((4-CHLORO-2-(TRIFLUO</td>
<td>68694-11-1</td>
</tr>
</tbody>
</table>

Personal protective equipment:

Respiratory protection: In case of insufficient ventilation, wear suitable respiratory equipment. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. The filter class for the respirator must be suitable for the maximum expected contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If this concentration is exceeded, self-contained breathing apparatus must be used.

Hand protection:

Remarks: Chemical resistant protective gloves
Eye protection: Safety glasses with side-shields or safety goggles

Skin and body protection: Long sleeved clothing
Remove and wash contaminated clothing before re-use.
Discard contaminated shoes.
To protect against splashes from pouring:
Rubber or plastic boots
Rubber or plastic apron

Hygiene measures: Handle in accordance with good industrial hygiene and safety practice.
Wear suitable gloves and eye/face protection.
Avoid contact with skin, eyes and clothing.
Do not inhale aerosol.
Ensure adequate ventilation, especially in confined areas.
When using do not eat, drink or smoke.
Wash thoroughly after handling.
Keep working clothes separately.
Remove and wash contaminated clothing before re-use.
Contaminated work clothing should not be allowed out of the workplace.
Allergic reactions may develop after inhalation of low concentrations, also several hours after exposure. Regular medical checks, including lung function, are recommended for long term and repeated use of isocyanates.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: liquid, suspension
Colour: off-white, to, tan
Odour: mild
Odour Threshold: No data available
pH: 6.5 - 8.5
Melting point/range: Not applicable
Boiling point/boiling range: No data available
Flash point: No data available
Evaporation rate: No data available
Upper explosion limit: No data available
Lower explosion limit: No data available
Vapour pressure: No data available
Relative vapour density: No data available
Relative density: 1.161 - 1.162 (25 °C)
Solubility(ies):
Water solubility: No data available
Solubility in other solvents: No data available
Partition coefficient: n-octanol/water: No data available
Auto-ignition temperature: No data available
Decomposition temperature: No data available
Viscosity:
Viscosity, dynamic: No data available
Viscosity, kinematic: No data available
Self-Accelerating decomposition temperature (SADT): Method: No information available.

SECTION 10. STABILITY AND REACTIVITY
Possibility of hazardous reactions: Hazardous polymerisation does not occur.
Conditions to avoid: None known.
Hazardous decomposition products: Burning produces noxious and toxic fumes.

SECTION 11. TOXICOLOGICAL INFORMATION
Information on likely routes of exposure
Skin Absorption
Inhalation
Ingestion
Acute toxicity
Product:
Acute oral toxicity: Acute toxicity estimate: 3,384 mg/kg
Method: Calculation method
Components:
1H-IMIDAZOLE, 1-((4-CHLORO-2-(TRIFLUO...
Acute dermal toxicity: LD50 (Rabbit, male and female): > 5,000 mg/kg

Skin corrosion/irritation

**Product:**
Species: Rabbit
Result: slight irritation

**Components:**
1H-IMIDAZOLE, 1-((4-CHLORO-2-(TRIFLUO:
Species: Rabbit
Result: No skin irritation

Serious eye damage/eye irritation

**Product:**
Species: Rabbit
Result: No eye irritation

**Components:**
1H-IMIDAZOLE, 1-((4-CHLORO-2-(TRIFLUO:
Species: Rabbit
Result: Mild eye irritation

Respiratory or skin sensitisation

**Product:**
Species: Guinea pig
Method: Buehler Test
Result: Did not cause sensitisation on laboratory animals.

**Components:**
1H-IMIDAZOLE, 1-((4-CHLORO-2-(TRIFLUO:
Species: Guinea pig
Assessment: May cause sensitisation by skin contact.
Result: Causes sensitisation.

Germ cell mutagenicity

**Product:**
Germ cell mutagenicity: negative

**Components:**
1H-IMIDAZOLE, 1-((4-CHLORO-2-(TRIFLUO:
Genotoxicity in vitro: Test Type: Ames test
Metabolic activation: with and without metabolic activation
Result: negative
Genotoxicity in vivo
Test Type: In vivo micronucleus test
Species: Mouse
Result: negative

Germ cell mutagenicity - Assessment
Not mutagenic in Ames Test, negative

Carcinogenicity

Components:
1H-IMIDAZOLE, 1-((4-CHLORO-2-(TRIFLUO:
Carcinogenicity - Assessment
Animal testing did not show any carcinogenic effects.

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.

Reproductive toxicity

Components:
1H-IMIDAZOLE, 1-((4-CHLORO-2-(TRIFLUO:
Reproductive toxicity - Assessment
No effects on or via lactation, Experiments have shown reproductive toxicity effects on laboratory animals. Did not show teratogenic effects in animal experiments.

STOT - repeated exposure

Components:
1H-IMIDAZOLE, 1-((4-CHLORO-2-(TRIFLUO:
Exposure routes: Oral
Target Organs: Blood
Assessment: May cause damage to organs through prolonged or repeated exposure.
SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

**Components:**

1H-IMIDAZOLE, 1-((4-CHLORO-2-(TRIFLUO):

**Toxicity to fish**

- LC50 (Oncorhynchus mykiss (rainbow trout)): 0.58 mg/l
  - Exposure time: 96 h
  - Test Type: static test
  - GLP: yes

- LC50 (Cyprinus carpio (Carp)): 0.76 mg/l
  - Exposure time: 96 h
  - Test Type: semi-static test
  - Analytical monitoring: yes
  - Method: OECD Test Guideline 203
  - GLP: yes

- LC50 (Lepomis machrochirus (Bluegill)): 1.2 mg/l
  - Exposure time: 96 h
  - Test Type: static test
  - GLP: yes

- LC50 (Cyprinodon variegatus (sheepshead minnow)): 1.4 mg/l
  - Exposure time: 96 h
  - Test Type: flow-through test
  - Analytical monitoring: yes
  - GLP: yes

**Toxicity to daphnia and other aquatic invertebrates**

- EC50 (Daphnia magna (Water flea)): 1.42 mg/l
  - Exposure time: 48 h
  - Test Type: semi-static test
  - Analytical monitoring: yes
  - Method: OECD Test Guideline 202
  - GLP: yes

- LC50 (Mysid shrimp): 0.62 mg/l
  - Exposure time: 96 h
  - Test Type: flow-through test
  - Analytical monitoring: yes
  - GLP: yes

**Toxicity to algae**

- EC50 (Freshwater algae): > 4.7 mg/l
  - End point: Growth rate
  - Exposure time: 72 h
  - Test Type: static test
  - Analytical monitoring: yes
  - Method: OECD Test Guideline 201
  - GLP: yes

- EC50 (Scenedesmus capricornutum (fresh water algae)): 1.91 mg/l
  - End point: Growth rate
Exposure time: 72 h
Analytical monitoring: yes
Method: OECD Test Guideline 201
GLP: yes

Toxicity to fish (Chronic toxicity)
NOEC (Cyprinodon variegatus (sheepshead minnow)): 0.12 mg/l
Exposure time: 24 d
Test Type: flow-through test

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)
NOEC (Daphnia magna (Water flea)): 0.14 mg/l
Exposure time: 21 d
Test Type: flow-through test
Analytical monitoring: yes
GLP: yes

Persistence and degradability
No data available

Bioaccumulative potential

Components:
1H-IMIDAZOLE, 1-(1-((4-CHLORO-2-(TRIFLUOROMETHYL)imidazol-1-yl)methyl)pyridin-4-yl)ethan-1-one
Partition coefficient: n-octanol/water
log Pow: 1.4

Mobility in soil
No data available

Other adverse effects

Product:
Ozone-Depletion Potential
Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances
Remarks: 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).

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods
Waste from residues
Dispose of waste in accordance with environmental legislation. Pesticide wastes are toxic. Do not contaminate ponds, waterways or ditches with chemical or used container.

SECTION 14. TRANSPORT INFORMATION

International Regulation
UNRTDG
UN number : UN 3082
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Triflumizole)
Class : 9
Packing group : III
Labels : 9

IATA-DGR
UN/ID No. : UN 3082
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Triflumizole)
Class : 9
Packing group : III
Labels : Miscellaneous
Packing instruction (cargo aircraft) : 964
Packing instruction (passenger aircraft) : 964

IMDG-Code
UN number : UN 3082
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Triflumizole)
Class : 9
Packing group : III
Labels : 9
EmS Code : F-A, S-F
Marine pollutant : yes

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
UN/ID/NA number : UN 3082
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (Triflumizole)
Class : 9
Packing group : III
Labels : CLASS 9
ERG Code : 171
Marine pollutant : yes (Triflumizole)
Remarks : Not regulated by DOT and TDG if shipped or transported in packaging less than 450 liters by road and/or rail. Please refer to 49 CFR for any details.
SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Component RQ (lbs)</th>
<th>Component RQ (lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>butanone</td>
<td>78-93-3</td>
<td>5000</td>
<td>*</td>
</tr>
</tbody>
</table>

*: Calculated RQ exceeds reasonably attainable upper limit.

SARA 304 Extremely Hazardous Substances Reportable Quantity

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Component RQ (lbs)</th>
<th>Calculated product RQ (lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ethylene oxide</td>
<td>75-21-8</td>
<td>10</td>
<td>*</td>
</tr>
</tbody>
</table>

*: Calculated RQ exceeds reasonably attainable upper limit.

SSARA 311/312 Hazards: Acute Health Hazard
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 known CAS numbers that exceed the threshold (De Minimis) 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
The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

<table>
<thead>
<tr>
<th>Substance</th>
<th>CAS-No.</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>sodium hydroxide</td>
<td>1310-73-2</td>
<td>0.0065 %</td>
</tr>
<tr>
<td>methyloxirane</td>
<td>75-56-9</td>
<td>0.00 %</td>
</tr>
</tbody>
</table>

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

<table>
<thead>
<tr>
<th>Substance</th>
<th>CAS-No.</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>sodium hydroxide</td>
<td>1310-73-2</td>
<td>0.0065 %</td>
</tr>
<tr>
<td>methyloxirane</td>
<td>75-56-9</td>
<td>0.00 %</td>
</tr>
</tbody>
</table>

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

California Prop. 65: WARNING! This product contains a chemical known to the State of California to cause cancer.
WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

FIFRA Hazard Information:

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The pesticide label also includes other important information, including directions for use.

The hazard information required on the pesticide label is reproduced below.

CAUTION

Harmful if swallowed.

This product is toxic to fish. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. DO NOT contaminate water when cleaning equipment or disposing of equipment washwater or rinsate. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas.

Do not use or store near heat or open flame.

SECTION 16. OTHER INFORMATION

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 Civil Aviation Organization; 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
Special hazard.

Revision Date : 10/20/2015

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.

US / EN
Carechem24 International Worldwide Coverage

Emergency Phone Number

<table>
<thead>
<tr>
<th>Region</th>
<th>Phone Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Europe:</td>
<td>All European Countries: +44 (0) 1235 239 670 (NCEC)</td>
</tr>
<tr>
<td>Asia Pacific:</td>
<td>East / South East Asia – Regional Number: +65 3158 1074</td>
</tr>
<tr>
<td></td>
<td>Australia: +61 2801 44558</td>
</tr>
<tr>
<td></td>
<td>New Zealand: +64 9929 1483</td>
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<tr>
<td></td>
<td>China: +86 532 8388 9090</td>
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<td>Japan: +81 345 789 341</td>
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<td>Sri Lanka: +65 3158 1195</td>
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<td></td>
<td>Emergency Phone Number: +65 3158 1200</td>
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<tr>
<td>Middle East / Africa:</td>
<td>Arabic speaking countries: +44 (0) 1235 239 671</td>
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<td>South Africa: +27 21 300 2732</td>
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<td>All other countries: +44 (0) 1235 239 670</td>
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<tr>
<td>America</td>
<td>United States of America and Canada: +1866 928 0789</td>
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<td>+1 215 207 0061</td>
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<td>Latin America:</td>
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<td>Mexico: +52 555 004 8763</td>
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<td>Chile: +56 225 829 336</td>
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<tr>
<td></td>
<td>All other countries: +44 (0) 1235 239 670</td>
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</tbody>
</table>