

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture
 Product name : PIX[®] WSG PLANT REGULATOR
 Synonyms : ARY-0494-005
 Other means of identification : EPA Reg. No. 66330-394

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Plant regulator.

1.3. Details of the supplier of the safety data sheet

Arysta LifeScience North America LLC
 15401 Weston Parkway, Suite 150
 Cary, NC 27513 - USA

1.4. Emergency telephone number

Emergency number : Exposure Calls (PROSAR): +1-866-303-6952 or +1-651-603-3432 (international)
 Spill Calls (CHEMTREC) (Contract # CCN1779): +1-800-424-9300 or +1-703-527-3887 (international)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Acute Tox. 4 (Oral) H302
 Eye Irrit. 2B H320

Full text of H-phrases: see section 16

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) :



GHS07

Signal word (GHS-US) : Warning
 Hazard statements (GHS-US) : H302 - Harmful if swallowed
 H320 - Causes eye irritation
 Precautionary statements (GHS-US) : P264 - Wash hands thoroughly after handling
 P270 - Do not eat, drink or smoke when using this product
 P301+P312 - If swallowed: Call a doctor if you feel unwell
 P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 P330 - Rinse mouth
 P337+P313 - If eye irritation persists: Get medical advice/attention
 P501 - Dispose of contents/container to an authorised waste collection point

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

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3.2. Mixture

| Name | Product identifier | % | GHS-US classification |
|---|---------------------|----|--|
| mepiquat chloride (Main constituent) | (CAS No) 24307-26-4 | 90 | Acute Tox. 3 (Oral), H301 Eye Irrit. 2B, H320 |

Full text of H-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures general : Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.
- First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- First-aid measures after skin contact : Wash with plenty of soap and water.
- First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- First-aid measures after ingestion : Rinse mouth. Call a POISON CENTER or doctor/physician if you feel unwell. Do NOT induce vomiting unless directed to do so by medical personnel.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries after eye contact : Causes eye irritation.
- Symptoms/injuries after ingestion : Swallowing a small quantity of this material will result in serious health hazard.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire.
- Unsuitable extinguishing media : None known.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Not flammable.
- Reactivity : No dangerous reactions known.

5.3. Advice for firefighters

- Firefighting instructions : Do not allow run-off from fire fighting to enter drains or water courses. Exercise caution when fighting any chemical fire.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Use self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Avoid all eye and skin contact and do not breathe vapour and mist.

6.1.1. For non-emergency personnel

- Protective equipment : Chemical goggles or safety glasses.
- Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

- Protective equipment : Chemical goggles or safety glasses.
- Emergency procedures : Stop leak if safe to do so.

6.2. Environmental precautions

Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

- For containment : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.
- Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Sweep or shovel spills into appropriate container for disposal.

6.4. Reference to other sections

Section 13: disposal information. Section 7: safe handling. Section 8: personal protective equipment.

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Avoid contact with skin and eyes.
Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Do not store near food, foodstuffs, drugs, or potable water supplies.
Storage temperature : 0 - 37.8 °C
Storage area : Store in dry, cool, well-ventilated area. Store away from heat.

7.3. Specific end use(s)

Plant regulator.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

| PIX [®] WSG PLANT REGULATOR | |
|--------------------------------------|----------------|
| ACGIH | Not applicable |
| OSHA | Not applicable |

| mepiquat chloride (24307-26-4) | |
|--------------------------------|----------------|
| ACGIH | Not applicable |
| OSHA | Not applicable |

8.2. Exposure controls

- Appropriate engineering controls : Avoid splashing. Use only outdoors or in a well-ventilated area.
Personal protective equipment : Avoid all unnecessary exposure.
Hand protection : It is a good industrial hygiene practice to minimize skin contact. Use rubber gloves. PVC.
Eye protection : Chemical goggles or safety glasses.
Skin and body protection : Rubber Apron.
Respiratory protection : None under normal use.
Other information : Do not eat, drink or smoke when using this product.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Physical state : Solid
Appearance : granules.
Colour : Off-white
Odour : Characteristic
Odour threshold : No data available
pH : 5.5
Melting point : No data available
Freezing point : No data available
Boiling point : No data available
Flash point : No data available
Relative evaporation rate (butyl acetate=1) : No data available
Flammability (solid, gas) : No data available
Explosive limits : No data available
Explosive properties : No data available
Oxidising properties : No data available
Vapour pressure : No data available
Density : 0.377 g/ml
Relative vapour density at 20 °C : No data available
Solubility : Water: Solubility in water of component(s) of the mixture :
• mepiquat chloride: > 50 %
Log Pow : No data available

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| | |
|---------------------------|---------------------|
| Log Kow | : No data available |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Viscosity | : No data available |
| Viscosity, kinematic | : No data available |
| Viscosity, dynamic | : No data available |

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Avoid excessive heat or cold.

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

Thermal decomposition generates : Carbon oxides (CO, CO₂). hydrogen chloride. Hydrogen cyanide. Nitrogen oxides.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Likely routes of exposure : Skin and eye contact; Inhalation

Acute toxicity : Oral: Harmful if swallowed.

| PIX [®] WSG PLANT REGULATOR | |
|--------------------------------------|---------------------------|
| LD50 oral rat | 1750 mg/kg |
| LD50 dermal rat | > 5000 mg/kg |
| LC50 inhalation rat (mg/l) | > 4 mg/l/4h |
| ATE US (oral) | 1750.000 mg/kg bodyweight |

| mepiquat chloride (24307-26-4) | |
|--------------------------------|--------------------------|
| LD50 oral rat | 270 mg/kg |
| LD50 dermal rat | > 1160 mg/kg |
| ATE US (oral) | 270.000 mg/kg bodyweight |

| | |
|--|--|
| Skin corrosion/irritation | : Not classified (Slightly irritating to skin) |
| Serious eye damage/irritation | : Causes eye irritation. (Slightly irritating to eyes.) |
| Respiratory or skin sensitisation | : Not classified (No sensitizing reaction was observed for guinea pigs) |
| Germ cell mutagenicity | : Not classified |
| Carcinogenicity | : Not classified |
| Reproductive toxicity | : Not classified |
| Specific target organ toxicity (single exposure) | : Not classified |
| Specific target organ toxicity (repeated exposure) | : Not classified |
| Aspiration hazard | : Not classified |
| Symptoms/injuries after eye contact | : Causes eye irritation. |
| Symptoms/injuries after ingestion | : Swallowing a small quantity of this material will result in serious health hazard. |

SECTION 12: Ecological information

12.1. Toxicity

| mepiquat chloride (24307-26-4) | |
|--------------------------------|---------------|
| LC50 fish 1 | 430 mg/l 96 h |

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| mepiquat chloride (24307-26-4) | |
|--------------------------------|----------------|
| EC50 Daphnia 1 | 68.5 mg/l 48 h |

12.2. Persistence and degradability

| mepiquat chloride (24307-26-4) | |
|--------------------------------|------------------------|
| Persistence and degradability | Readily biodegradable. |

12.3. Bioaccumulative potential

| mepiquat chloride (24307-26-4) | |
|--------------------------------|--------------------------------|
| Log Pow | -3.55 |
| Bioaccumulative potential | Not expected to bioaccumulate. |

12.4. Mobility in soil

| mepiquat chloride (24307-26-4) | |
|--------------------------------|-------------|
| Ecology - soil | Non-mobile. |

12.5. Other adverse effects

EPA states Mepiquat chloride is practically non-toxic to birds on an acute oral and sub-acute dietary basis. Mepiquat chloride is moderately toxic to small mammals at high concentrations. It is practically non-toxic to honey bees on an acute contact basis and to freshwater, estuarine and marine fish and aquatic invertebrates on an acute basis. Adverse chronic effects to aquatic organisms are also not expected. Mepiquat chloride is slightly to practically nontoxic to estuarine and marine invertebrates on an acute basis, and chronic effects are not expected. The Agency does not expect significant effects on non-target terrestrial plant seedling emergence, vegetative vigor, or non-target aquatic plant toxicity.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Sewage disposal recommendations : Do not dispose of waste into sewer.
Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT
Not considered a dangerous good for transport regulations

Additional information

Other information : No supplementary information available.

ADR

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

| mepiquat chloride (24307-26-4) | |
|---|--|
| Listed on the United States TSCA (Toxic Substances Control Act) inventory | |

15.2. International regulations

CANADA

| mepiquat chloride (24307-26-4) | |
|--|--|
| Listed on the Canadian DSL (Domestic Substances List) inventory. | |

EU-Regulations

| mepiquat chloride (24307-26-4) | |
|--|--|
| Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) | |

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute Tox. 4 (Oral) H302
Aquatic Chronic 3 H412
Full text of H-phrases: see section 16

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National regulations

No additional information available

15.3. US State regulations

No additional information available

15.4. US EPA – FIFRA Regulations

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 hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

Signal word (FIFRA) : Caution.

Hazard statements (FIFRA) : Harmful if swallowed or absorbed through the skin. Causes moderate eye irritation. Avoid contact with eyes, skin and clothing.

Environmental hazards : Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters or rinsate.

SECTION 16: Other information

Indication of changes : Original Document.

Data sources : ACGIH (American Conference of Government Industrial Hygienists).
National Fire Protection Association. Fire Protection Guide to Hazardous Materials; 10th edition.
Krister Forsberg and S.Z. Mansdorf, "Quick Selection Guide to Chemical Protective Clothing", Fifth Edition.
OSHA 29CFR 1910.1200 Hazard Communication Standard.
TSCA Chemical Substance Inventory. Accessed at <http://www.epa.gov/oppt/existingchemicals/pubs/tscainventory/howto.html>.

Abbreviations and acronyms : ATE: Acute Toxicity Estimate.
CAS (Chemical Abstracts Service) number.
CLP: Classification, Labelling, Packaging.
EC50: Environmental Concentration associated with a response by 50% of the test population.
LD50: Lethal Dose for 50% of the test population.
GHS: Globally Harmonized System (of Classification and Labeling of Chemicals).
NOEC: No Observable Effect Concentration.
OSHA: Occupational Safety & Health Administration.
TSCA: Toxic Substances Control Act.

Other information : None.

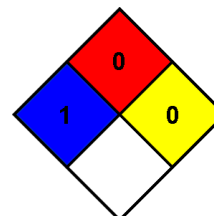
Full text of H-phrases:

| | |
|---------------------|--|
| Acute Tox. 3 (Oral) | Acute toxicity (oral), Category 3 |
| Acute Tox. 4 (Oral) | Acute toxicity (oral), Category 4 |
| Eye Irrit. 2B | Serious eye damage/eye irritation, Category 2B |
| H301 | Toxic if swallowed |
| H302 | Harmful if swallowed |
| H320 | Causes eye irritation |

NFPA health hazard : 1 - Exposure could cause irritation but only minor residual injury even if no treatment is given.

NFPA fire hazard : 0 - Materials that will not burn.

NFPA reactivity : 0 - Normally stable, even under fire exposure conditions, and not reactive with water.



SDS US (GHS HazCom 2012)

SDS Prepared by:

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This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product