

Safety Data Sheet

HEADLINE AMP

Revision date : 2009/09/25
Version: 1.0

Page: 1/10
(30495391/SDS_CPA_US/EN)

1. Product and Company Identification

Company
BASF CORPORATION
100 Campus Drive
Florham Park, NJ 07932

24 Hour Emergency Response Information
CHEMTREC: 1-800-424-9300
BASF HOTLINE: 1-800-832-HELP

Registrant:

Substance number:	000000240008
Molecular formula:	C ₁₉ H ₁₈ N ₃ O ₄ Cl, C ₁₇ H ₂₂ N ₃ OCl
Chemical family:	strobilurine, conazoles
Synonyms:	pyraclostrobin and metconazole (active ingredients)

2. Hazards Identification

Emergency overview

WARNING:
KEEP OUT OF REACH OF CHILDREN.
May be fatal if swallowed.
HARMFUL IF ABSORBED THROUGH SKIN.
HARMFUL IF INHALED.
Moderately irritating to the eyes.
Avoid contact with the skin, eyes and clothing.
Avoid inhalation of mists/vapours.

See Product Label for additional precautionary statements.

State of matter: liquid
Colour: white
Odour: odourless

Potential health effects

Primary routes of exposure:

Routes of entry for solids and liquids include eye and skin contact, ingestion and inhalation. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquified gases.

Acute toxicity:

Moderately toxic after single ingestion.

Irritation / corrosion:

May cause moderate but temporary irritation to the eyes. May cause slight irritation to the skin.

Sensitization:

Skin sensitizing effects were not observed in animal studies.

Safety Data Sheet

HEADLINE AMP

Revision date : 2009/09/25
Version: 1.0

Page: 2/10
(30495391/SDS_CPA_US/EN)

3. Composition / Information on Ingredients

<u>CAS Number</u>	<u>Content (W/W)</u>	<u>Chemical name</u>
175013-18-0	13.64 %	pyraclostrobin
125116-23-6	5.14 %	Metconazole
57-55-6	< 5.0 %	Propylene glycol
14808-60-7	< 0.1 %	crystalline silica
		Proprietary ingredients

4. First-Aid Measures

General advice:

Avoid contact with the skin, eyes and clothing. Remove contaminated clothing. If difficulties occur: Obtain medical attention. Show container, label and/or safety data sheet to physician.

First aid providers should wear personal protective equipment to prevent exposure. Remove contaminated clothing. Move person to fresh air. If person is not breathing, call 911 or ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or physician for treatment advice. Have the product container or label with you when calling a poison control center or doctor or going for treatment.

If inhaled:

Keep patient calm, remove to fresh air, seek medical attention.

Remove the affected individual into fresh air and keep the person calm.

If on skin:

After contact with skin, wash immediately with plenty of water and soap. If irritation develops, seek medical attention.

Rinse skin immediately with plenty of water for 15 - 20 minutes.

If in eyes:

Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing.

If swallowed:

Rinse mouth immediately and then drink plenty of water, seek medical attention.

Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions. Do not induce vomiting. Have person sip a glass of water if able to swallow.

Note to physician

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

Antidote: No known specific antidote.
Treatment: Treat symptomatically.

5. Fire-Fighting Measures

Flash point: > 200 °F
> 93.33 °C

Safety Data Sheet

HEADLINE AMP

Revision date : 2009/09/25
Version: 1.0

Page: 3/10
(30495391/SDS_CPA_US/EN)

Suitable extinguishing media:

water spray, water fog, carbon dioxide, foam, dry extinguishing media

foam, dry extinguishing media, carbon dioxide, water spray

Unsuitable extinguishing media for safety reasons:

water jet

Hazards during fire-fighting:

carbon monoxide, carbon dioxide, nitrogen dioxide, nitrogen oxide, Hydrogen chloride, halogenated hydrocarbons, Hydrocarbons,

If product is heated above decomposition temperature, toxic vapours will be released. If product is heated above decomposition temperature, flammable vapours will be released.

Protective equipment for fire-fighting:

Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

Further information:

Evacuate area of all unnecessary personnel. Contain contaminated water/firefighting water. Do not allow to enter drains or waterways.

6. Accidental release measures

Personal precautions:

Take appropriate protective measures. Clear area. Shut off source of leak only under safe conditions. Extinguish sources of ignition nearby and downwind. Ensure adequate ventilation. Wear suitable personal protective clothing and equipment.

Environmental precautions:

Do not discharge into the subsoil/soil. Do not discharge into drains/surface waters/groundwater. Contain contaminated water/firefighting water.

Cleanup:

Dike spillage. Pick up with suitable absorbent material. Place into suitable containers for reuse or disposal in a licensed facility. Spilled substance/product should be recovered and applied according to label rates whenever possible. If application of spilled substance/product is not possible, then spills should be contained, solidified, and placed in suitable containers for disposal. After decontamination, spill area can be washed with water. Collect wash water for approved disposal.

7. Handling and Storage

Handling**General advice:**

RECOMMENDATIONS ARE FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS. PESTICIDE APPLICATORS & WORKERS must refer to the Product Label and Directions for Use attached to the product for Agricultural Use Requirements in accordance with the EPA Worker Protection Standard 40 CFR part 170. Ensure adequate ventilation. Provide good ventilation of working area (local exhaust ventilation if necessary). Keep away from sources of ignition - No smoking. Keep container tightly sealed. Protect contents from the effects of light. Protect against heat. Protect from air. Handle and open container with care. Do not open until ready to use. Once container is opened, content should be used as soon as possible. Avoid aerosol formation. Avoid dust formation. Provide means for controlling leaks and spills. Do not return residues to the storage containers. Follow label warnings even after container is emptied. The substance/product may be handled only by appropriately trained personnel. Avoid all direct contact with the substance/product. Avoid contact with the skin, eyes and clothing. Avoid inhalation of dusts/mists/vapours. Wear suitable personal protective clothing and equipment.

Protection against fire and explosion:

The relevant fire protection measures should be noted. Fire extinguishers should be kept handy. Avoid all sources of ignition: heat, sparks, open flame. Sources of ignition should be kept well clear. Avoid extreme heat.

Safety Data Sheet

HEADLINE AMP

Revision date : 2009/09/25
Version: 1.0

Page: 4/10
(30495391/SDS_CPA_US/EN)

Keep away from oxidizable substances. Electrical equipment should conform to national electric code. Ground all transfer equipment properly to prevent electrostatic discharge. Electrostatic discharge may cause ignition.

Storage

General advice:

Keep only in the original container in a cool, dry, well-ventilated place away from ignition sources, heat or flame. Protect containers from physical damage. Protect against contamination. The authority permits and storage regulations must be observed.

Storage incompatibility:

General advice: Segregate from incompatible substances. Segregate from foods and animal feeds. Segregate from textiles and similar materials.

8. Exposure Controls and Personal Protection

Users of a pesticidal product should refer to the product label for personal protective equipment requirements.

Components with workplace control parameters

crystalline silica	OSHA	TWA value 2.4 millions of particles per cubic foot of air Respirable ; The value is calculated from a specified equation using a value of 100%. Lower values of % will give higher exposure limits. See regulation for specific equation. TWA value 0.1 mg/m3 Respirable ; The value is calculated from a specified equation using a value of 100%. Lower values of % will give higher exposure limits. See regulation for specific equation. TWA value 0.3 mg/m3 Total dust ; The value is calculated from a specified equation using a value of 100%. Lower values of % will give higher exposure limits. See regulation for specific equation.
Sodium Hydroxide	ACGIH OSHA	TWA value 0.025 mg/m3 Respirable fraction ; PEL 2 mg/m3 ;
dimethyl sulphate	ACGIH OSHA	CLV 2 mg/m3 ; PEL 1 ppm 5 mg/m3 ; Skin Designation ; The substance can be absorbed through the skin.
	ACGIH	TWA value 0.1 ppm ; Skin Designation ; The substance can be absorbed through the skin.
1,4-dioxane	OSHA	PEL 100 ppm 360 mg/m3 ; Skin Designation ; The substance can be absorbed through the skin.
	ACGIH	TWA value 20 ppm ; Skin Designation ; The substance can be absorbed through the skin.
Ethylene Oxide	OSHA	TWA value 1 ppm ; STEL value 5 ppm ; OSHA Action level 0.5 ppm ;
Propylene oxide	ACGIH OSHA ACGIH	TWA value 1 ppm ; PEL 100 ppm 240 mg/m3 ; TWA value 2 ppm ;

Advice on system design:

Whenever possible, engineering controls should be used to minimize the need for personal protective equipment.

Personal protective equipment

RECOMMENDATIONS FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS:

Safety Data Sheet

HEADLINE AMP

Revision date : 2009/09/25
Version: 1.0

Page: 5/10
(30495391/SDS_CPA_US/EN)

Respiratory protection:

Wear respiratory protection if ventilation is inadequate. Wear a NIOSH-certified (or equivalent) TC23C Chemical/Mechanical type filter system to remove a combination of particles, gas and vapours. For situations where the airborne concentrations may exceed the level for which an air purifying respirator is effective, or where the levels are unknown or Immediately Dangerous to Life or Health (IDLH), use NIOSH-certified full facepiece pressure demand self-contained breathing apparatus (SCBA) or a full facepiece pressure demand supplied-air respirator (SAR) with escape provisions.

Hand protection:

Chemical resistant protective gloves, Protective glove selection must be based on the user's assessment of the workplace hazards.

Eye protection:

Safety glasses with side-shields. Tightly fitting safety goggles (chemical goggles). Wear face shield if splashing hazard exists.

Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. head protection, apron, protective boots, chemical-protection suit.

General safety and hygiene measures:

Wear long sleeved work shirt and long work pants in addition to other stated personal protective equipment. Work place should be equipped with a shower and an eye wash. Handle in accordance with good industrial hygiene and safety practice. Personal protective equipment should be decontaminated prior to reuse. Gloves must be inspected regularly and prior to each use. Replace if necessary (e.g. pinhole leaks). Take off immediately all contaminated clothing. Store work clothing separately. Hands and/or face should be washed before breaks and at the end of the shift. No eating, drinking, smoking or tobacco use at the place of work. Keep away from food, drink and animal feeding stuffs.

9. Physical and Chemical Properties

Form:	liquid	
Odour:	odourless	
Colour:	white	
pH value:	5.2	
Melting point:		No data available.
Boiling point:	approx. 100 °C	
Vapour pressure:		No data available.
Density:	1.0574 g/cm3	(20 °C)
Relative density:	1.059	
Viscosity, dynamic:	370.9 mPa.s	
Solubility in water:		dispersible

10. Stability and Reactivity

Conditions to avoid:

Avoid all sources of ignition: heat, sparks, open flame. Avoid extreme temperatures. Avoid prolonged exposure to extreme heat. Avoid contamination. Avoid electro-static discharge. Avoid prolonged storage.

Hazardous reactions:

The product is chemically stable.

Hazardous polymerization will not occur. No hazardous reactions if stored and handled as prescribed/indicated.

Decomposition products:

No hazardous decomposition products if stored and handled as prescribed/indicated., Prolonged thermal loading can result in products of degradation being given off.

Thermal decomposition:

Possible thermal decomposition products:

Safety Data Sheet

HEADLINE AMP

Revision date : 2009/09/25
Version: 1.0

Page: 6/10
(30495391/SDS_CPA_US/EN)

carbon monoxide, carbon dioxide, nitrogen dioxide, Hydrogen chloride, nitrogen oxide, halogenated hydrocarbons, Hydrocarbons
Stable at ambient temperature. If product is heated above decomposition temperature toxic vapours may be released. If product is heated above decomposition temperature hazardous fumes may be released.

Corrosion to metals:

Corrosive effects to metal are not anticipated.

Oxidizing properties:

Not an oxidizer.

11. Toxicological information

Acute toxicity

Oral:

Type of value: LD50
Species: rat (female)
Value: approx. 500 mg/kg

Inhalation:

Type of value: LC50
Species: rat (male/female)
Value: 2.73 mg/l (OECD Guideline 403)
Exposition time: 4 h

Dermal:

Type of value: LD50
Species: rat (male/female)
Value: > 5,000 mg/kg

Irritation / corrosion

Skin:

Species: rabbit
Result: Slightly to moderately irritating.

Eye:

Species: rabbit
Result: non-irritant

Sensitization:

Buehler test
Species: guinea pig
Result: Non-sensitizing.

Repeated dose toxicity

Information on: Propylene glycol

Information on: pyraclostrobin

Information on: Metconazole

Genetic toxicity

Information on: pyraclostrobin

No mutagenic effect was found in various tests with microorganisms and mammalian cell culture.

Information on: Metconazole

Results from a number of mutagenicity studies with microorganisms, mammalian cell culture and mammals are available. Taking into account all of the information, there is no indication that the substance is mutagenic.

Safety Data Sheet

HEADLINE AMP

Revision date : 2009/09/25
Version: 1.0

Page: 7/10
(30495391/SDS_CPA_US/EN)

Carcinogenicity

Information on: pyraclostrobin

In long-term studies in rats and mice in which the substance was given by feed, a carcinogenic effect was not observed.

Information on: Metconazole

In long-term studies in rodents exposed to high doses, a tumorigenic effect was found; however, these results are thought to be due to a rodent-specific liver effect that is not relevant to humans.

Reproductive toxicity

Information on: pyraclostrobin

The results of animal studies gave no indication of a fertility impairing effect.

Information on: Metconazole

Animal studies gave no indication of a developmental toxic effect at doses that were not toxic to the parental animals.

Development:

Information on: pyraclostrobin

No indications of a developmental toxic / teratogenic effect were seen in animal studies.

Information on: Metconazole

Causes developmental effects in animals at high, maternally toxic doses.

Other Information:

Attention - The product has not yet been fully tested. Misuse can be harmful to health.

No data available for the preparation. The data on toxicology refer to the active ingredient.

12. Ecological Information

Aquatic toxicity

Information on: pyraclostrobin

Assessment of aquatic toxicity:

Very toxic (acute effect) to aquatic organisms.

Information on: Metconazole

Fish

Information on: pyraclostrobin

Acute:

Cyprinus carpio/LC50 (96 h): > 0.0121 - < 0.0258 mg/l

Lepomis macrochirus/LC50 (96 h): > 0.0196 - < 0.0335 mg/l

Oncorhynchus mykiss/LC50 (96 h): 0.00616 mg/l

Information on: Metconazole

Acute:

Oncorhynchus mykiss/LC50 (96 h): 2.2 mg/l

Cyprinus carpio/LC50 (96 h): 3.99 mg/l

Aquatic invertebrates

Information on: pyraclostrobin

Acute:

Safety Data Sheet

HEADLINE AMP

Revision date : 2009/09/25
Version: 1.0

Page: 8/10
(30495391/SDS_CPA_US/EN)

Daphnia magna/EC50 (48 h): 0.016 mg/l

Information on: Metconazole

Acute:

Daphnia magna/EC50 (48 h): 4.2 mg/l

Aquatic plants

Information on: pyraclostrobin

Toxicity to aquatic plants:

green algae/EC50 (96 h): > 0.843 mg/l

Information on: Metconazole

Toxicity to aquatic plants:

green algae/EC50 (72 h): 1.7 mg/l

Poorly biodegradable.

Other adverse effects:

No data available for the preparation. The ecological data given are those of the active ingredient.

13. Disposal considerations

Waste disposal of substance:

Pesticide wastes are regulated. Improper disposal of excess pesticide, spray mix or rinsate is a violation of federal law. If pesticide wastes cannot be disposed of according to label instructions, contact the State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container disposal:

Rinse thoroughly at least three times (triple rinse) in accordance with EPA recommendations. Consult state or local disposal authorities for approved alternative procedures such as container recycling. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

RCRA:

This product is not regulated by RCRA.

14. Transport Information

Reference Bill of Lading

15. Regulatory Information

Federal Regulations

Registration status:

Chemical TSCA, US blocked / not listed

Crop Protection TSCA, US released / exempt

OSHA hazard category: IARC 1, 2A or 2B carcinogen; Chronic target organ effects reported

EPCRA 311/312 (Hazard categories): Acute; Chronic

Safety Data Sheet

HEADLINE AMP

Revision date : 2009/09/25
Version: 1.0

Page: 9/10
(30495391/SDS_CPA_US/EN)

State regulations

State RTK
PA

CAS Number
57-55-6

Chemical name
Propylene glycol

CA Prop. 65:

THIS PRODUCT CONTAINS A CHEMICAL(S) KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER AND BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM.

16. Other Information

Refer to product label for EPA registration number.

Recommended use: crop protection product

BASF supports worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to Responsible Care is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.

Local Contact Information

Product Stewardship
919 547-2000

IMPORTANT: WHILE THE DESCRIPTIONS, DESIGNS, DATA AND INFORMATION CONTAINED HEREIN ARE PRESENTED IN GOOD FAITH AND BELIEVED TO BE ACCURATE , IT IS PROVIDED FOR YOUR GUIDANCE ONLY. BECAUSE MANY FACTORS MAY AFFECT PROCESSING OR APPLICATION/USE, WE RECOMMEND THAT YOU MAKE TESTS TO DETERMINE THE SUITABILITY OF A PRODUCT FOR YOUR PARTICULAR PURPOSE PRIOR TO USE. NO WARRANTIES OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE MADE REGARDING PRODUCTS DESCRIBED OR DESIGNS, DATA OR INFORMATION SET FORTH, OR THAT THE PRODUCTS, DESIGNS, DATA OR INFORMATION MAY BE USED WITHOUT INFRINGING THE INTELLECTUAL PROPERTY RIGHTS OF OTHERS. IN NO CASE SHALL THE DESCRIPTIONS, INFORMATION, DATA OR DESIGNS PROVIDED BE CONSIDERED A PART OF OUR TERMS AND CONDITIONS OF SALE. FURTHER, YOU EXPRESSLY UNDERSTAND AND AGREE THAT THE DESCRIPTIONS, DESIGNS, DATA, AND INFORMATION FURNISHED BY BASF HEREUNDER ARE GIVEN GRATIS AND BASF ASSUMES NO OBLIGATION OR LIABILITY FOR THE DESCRIPTION, DESIGNS, DATA AND INFORMATION GIVEN OR RESULTS OBTAINED, ALL SUCH BEING GIVEN AND ACCEPTED AT YOUR RISK.

IMPORTANT: WHILE THE DESCRIPTIONS, DESIGNS, DATA AND INFORMATION CONTAINED HEREIN ARE PRESENTED IN GOOD FAITH AND BELIEVED TO BE ACCURATE , IT IS PROVIDED FOR YOUR GUIDANCE ONLY. BECAUSE MANY FACTORS MAY AFFECT PROCESSING OR APPLICATION/USE, WE RECOMMEND THAT YOU MAKE TESTS TO DETERMINE THE SUITABILITY OF A PRODUCT FOR YOUR PARTICULAR PURPOSE PRIOR TO USE. NO WARRANTIES OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE MADE REGARDING PRODUCTS DESCRIBED OR DESIGNS, DATA OR INFORMATION SET FORTH, OR THAT THE PRODUCTS, DESIGNS, DATA OR INFORMATION MAY BE USED WITHOUT INFRINGING THE INTELLECTUAL PROPERTY RIGHTS OF OTHERS. IN NO CASE SHALL THE DESCRIPTIONS, INFORMATION, DATA OR DESIGNS PROVIDED BE CONSIDERED A PART OF OUR TERMS AND CONDITIONS OF SALE. FURTHER, YOU EXPRESSLY UNDERSTAND AND AGREE THAT THE DESCRIPTIONS, DESIGNS, DATA, AND INFORMATION FURNISHED BY BASF SPARKS LLC HEREUNDER ARE GIVEN GRATIS AND BASF SPARKS LLC ASSUMES NO OBLIGATION OR LIABILITY

Safety Data Sheet

HEADLINE AMP

Revision date : 2009/09/25
Version: 1.0

Page: 10/10
(30495391/SDS_CPA_US/EN)

FOR THE DESCRIPTION, DESIGNS, DATA AND INFORMATION GIVEN OR RESULTS OBTAINED, ALL SUCH BEING GIVEN AND ACCEPTED AT YOUR RISK.

IMPORTANT: WHILE THE DESCRIPTIONS, DESIGNS, DATA AND INFORMATION CONTAINED HEREIN ARE PRESENTED IN GOOD FAITH AND BELIEVED TO BE ACCURATE, IT IS PROVIDED FOR YOUR GUIDANCE ONLY. BECAUSE MANY FACTORS MAY AFFECT PROCESSING OR APPLICATION/USE, WE RECOMMEND THAT YOU MAKE TESTS TO DETERMINE THE SUITABILITY OF A PRODUCT FOR YOUR PARTICULAR PURPOSE PRIOR TO USE. NO WARRANTIES OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE MADE REGARDING PRODUCTS DESCRIBED OR DESIGNS, DATA OR INFORMATION SET FORTH, OR THAT THE PRODUCTS, DESIGNS, DATA OR INFORMATION MAY BE USED WITHOUT INFRINGING THE INTELLECTUAL PROPERTY RIGHTS OF OTHERS. IN NO CASE SHALL THE DESCRIPTIONS, INFORMATION, DATA OR DESIGNS PROVIDED BE CONSIDERED A PART OF OUR TERMS AND CONDITIONS OF SALE. FURTHER, YOU EXPRESSLY UNDERSTAND AND AGREE THAT THE DESCRIPTIONS, DESIGNS, DATA, AND INFORMATION FURNISHED BY BASF POLYURETHANE FOAM ENTERPRISES LLC HEREUNDER ARE GIVEN GRATIS AND BASF POLYURETHANE FOAM ENTERPRISES LLC ASSUMES NO OBLIGATION OR LIABILITY FOR THE DESCRIPTION, DESIGNS, DATA AND INFORMATION GIVEN OR RESULTS OBTAINED, ALL SUCH BEING GIVEN AND ACCEPTED AT YOUR RISK.

Attention - The product has not yet been fully tested.

This product is of industrial quality and unless otherwise specified or agreed intended exclusively for industrial use.

Any other intended applications should be discussed with the manufacturer.

END OF DATA SHEET