



We create chemistry

SPECIMEN

Sprint® 138

IRON CHELATE* MICRONUTRIENT

- For correction of iron deficiency in alkaline and calcareous soils.
- For use in nurseries, gardens, landscape plantings and turf.

4-0-0

Guaranteed analysis:

Total Nitrogen (N)..... 4%

4% Water Soluble Nitrogen

Iron (Fe)*..... 6%

6% Chelated Iron (Fe)

*Derived from : Iron EDDHA

FOR PROFESSIONAL USE ONLY

Keep Out of Reach of Children

This product does not require a hazard warning in accordance with GHS criteria.

Net Contents:

BASF Corporation
26 Davis Drive, Research Triangle Park, NC 27709

Product Information

Sprint® 138, a source of iron in a form readily available to plants, can be applied as a soil application or as a foliar spray to correct iron deficiencies. As a soil application, **Sprint 138** is effective over a wide pH range, including soils where pH is 7.0 and above. **Sprint 138** contains the highest *ortho-ortho* available (5.2%), providing a highly efficient chelate that will keep working to “shuttle iron” from the soil to the plant for an extended period of time. Application rates will depend upon the severity of the deficiency, but should be kept within the recommended range for each plant type. Unless specified differently, best results will be obtained when applications are made early in the plant growth cycle.

Information regarding the contents and levels of metals in this product is available on the Internet at:

<http://www.aapfco.org/metals.html>.

Wisconsin Users: Iron deficiency has rarely been observed on field or vegetable crops in Wisconsin, except that iron chlorosis has occasionally been observed on soybeans grown on alkaline soils (pH above 7.0). Do not use this product on any crop listed on this label unless an iron deficiency has been confirmed by plant analysis or visual deficiency symptoms. For further information on confirming iron deficiencies, contact University of Wisconsin Extension personnel.

Directions For Use

Soil application: To be effective as a soil application, **Sprint 138** must get into the root zone. It can be incorporated in the root zone during application or it can be moved into the root zone by rainfall or irrigation. **Sprint 138** can be applied as a drench, injected directly into the soil or banded. For plants grown in rows, soil applications are most effective when made as a band placed in the soil at planting time, or as a sidedressing shortly after plants emerge or after transplanting. **Sprint 138** can be applied alone or in combination with dry or liquid fertilizers. To obtain uniform distribution, it can be mixed with inert materials such as sand or dry soil and uniformly distributed over the soil surface around the plants. When applied to the soil around trees, apply within the drip line and slightly incorporate into the soil or water in. **Sprint 138** can be used at any time, but application in the spring or around planting time is preferred because (1) spring rains will move it into the root zone, and (2) iron will be available during the early flush of growth. Injection into the irrigation water provides a good after-planting method of application.

Foliar application: Applications in water should be made as thorough cover sprays following the directions given below. Addition of up to 0.5% wetting agent (1 pint per 25

gals spray) to the solution may help insure uniform distribution. **Sprint 138** is compatible with most pesticides registered for pest control and the large number of fertilizers. However, because of the large number of pesticides registered for pest control and the large number of fertilizers, a small test area should be sprayed to determine that no phytotoxicity or undesired effects result from the combination spray before applying to large plant areas. To facilitate mixing, it is suggested that the required amount of **Sprint 138** be added to a small amount of water and mixed until completely dissolved. The pre-mix solution can then be added, using agitation, to the final water or liquid fertilizer solution.

Applications and Rates

TREE FRUITS AND NUTS

Almonds, Apples, Apricots, Cherries, Nectarines, Pecans, Plums, Prunes, and Walnuts

Foliar sprays: Mix 1-1 1/2 lbs. per 100 gallons of water and apply as a thorough cover spray prior to bloom or after harvest. To avoid possible injury to plants, do not use in combination with oils.

Apples, Apricots, Avocados, Cherries, Macadamias, Nectarines, Peaches, Pears, Plums, Prunes and Walnuts

Soil applications: Mix 1/2-2 oz. per tree for each inch of trunk diameter measured at chest height but do not apply more than 1 lb. per tree. Apply in the spring, either prior to or at the time of new spring growth evenly within the drip line.

Peaches and Pears only

Foliar spray: Mix 1-3 lbs. per 100 gallons of water and apply as a thorough cover spray about 4-5 weeks after full bloom. If the deficiency is severe, apply 1-2 additional sprays at 2-3 week intervals. To avoid possible injury to plants, do not use in combination with oils.

CITRUS

Foliar spray: Mix 1 lb. per 100 gals. of water and apply as a thorough cover spray any time after harvest of the main crop and up until bloom of the succeeding main crop. Do not apply when the main crop is on the tree. To avoid possible injury to plants, do not apply when the main crop is on the tree. To avoid possible injury to plants, do not use in combination with oils or miticides.

Soil Applications: For mature trees, apply 1/3 to 1/2 lb. per tree in light sandy soils and 1/2-1 lb. per tree in heavy soils. Broadcast evenly within the drip line of the trees prior to the winter flush of growth. For an annual maintenance program, apply 1/4-1/3 lb. per tree.

SMALL FRUITS

(Blackberries, Blueberries, Boysenberries, Dewberries, Loganberries, Raspberries, Strawberries, etc.)

Soil applications: Apply as a band or sidedress application at 1/2-1 lb. per 100 ft. of row in early spring or when deficiency symptoms first appear.

Grapes

Foliar application: Mix 1.5 lbs. per 100 gals. of water and apply as a thorough cover spray.

Soil: Apply in band or sidedress at rate of 1/2-1 lb. per 100 ft. of row.

ORNAMENTALS

Roses and Flowering Shrubs (Azaleas, Crepe Myrtle, Euonymus, Forsythia, Gardenia, Honeysuckle, Spirea, and similar plants)

For soil applications, apply 2-4 oz. (6-12 tbsp.) per 100 sq. ft. as a broadcast application and water in thoroughly. For individual plants, apply 6 tbsp. per plant for small shrubs and 12 tbsp. per plant for large shrubs.

For plants in containers, apply 1/4 tsp. per 8-inch pot, or 1/2 tsp. per 12-inch pot

Aster, Canna, Chrysanthemum, Daylily, Geranium, Iris, Nasturtium, Petunias, Verbena, and similar annuals and perennials

Soil applications: Apply 20 oz. per 1,000 sf. ft. and water in well. For plants in containers, apply 1/4 tsp. per 8-inch pot or 1/2 tsp. per 12-inch pot.

Gladiolus

Soil applications: Apply 80 oz. per 1,000 sq. ft. of row. For plants in containers, apply 1/4 tsp. per 8-inch pot or 1/2 tsp. per 12-inch pot.

Dwarf Apple, Chinese Arborvitae, Chinese and American Elm, Juniper, Mimosa, Shortleaf Pine, Ponderosa Pine, Pin Oak, Sycamore, and similar trees

Soil applications: Apply up to 2 oz. per tree for each inch of trunk diameter measured at chest height. Apply in the spring, either prior to or at the time of new spring growth evenly within the drip line and follow with thorough irrigation.

For plants in containers, apply 1/4 tsp. per 8-inch pot, or 1/2 tsp. per 12-inch pot.

VEGETABLES

Beans, Corn, Mustard and Spinach

Soil applications: Make a band or sidedress application at up to 2 oz. per 1,000 sq. ft. (5 lbs. per acre) at planting or when deficiency symptoms first appear.

Black-eyed Peas, Carrots, Cucumbers, Eggplants, Melons, Onions, Parsnips, Peas, Peppers, Potatoes, Radishes, Squash, Tomatoes and Turnips

Foliar applications: Apply 1/2 oz. per 1,000 sq. ft. (1 1/2 lbs. per acre) in sufficient water for thorough coverage.

Apply 4-6 weeks after planting or when deficiency symptoms first appear. Repeat in 2-3 weeks if necessary.

Apply to cucumbers, eggplants, melons, peppers, squash and tomatoes prior to bloom.

Soil applications: Make a band or sidedress application at up to 2 oz. per 1,000 sq. ft. (5 lbs. per acre) at planting or when deficiency symptoms first appear.

Cabbage, Cauliflower, Celery and Lettuce

Soil applications: Make a band or sidedress application at up to 2 oz. per 1,000 sq. ft. (5 lbs. per acre) at planting or when deficiency symptoms first appear.

TURF

Bluegrass, St. Augustine, Bentgrass, Fescues, Ryegrass, Zoysiagrass, Centipede, Bermudagrasses, including hybrid and dwarf varieties, etc.

Foliar spray: 2 oz. per 1,000 sq. ft.

Note: The addition of 0.1 lb. of ammoniacal N per 1,000 sq. ft. may enhance iron uptake in foliar applications.

Greenhouse and Nursery Specialized Applications

| Parts per million (PPM) actual Fe | Drench Rate Guidelines For drenches, mix Rate amount in 100 gals. (375 L) of water volume | | | | Irrigation Injection Rate Guidelines | |
|-----------------------------------|--|--------------|---|--------------|--|--------------------------|
| | Sprint® 330 10% DTPA Chelated Iron | | Sprint® 138 6% EDDHA Chelated Iron (5.2% ortho ortho) | | Concentrate Stock Solution (gal.) | Injector Pump Setting |
| | Rate (oz.) | Rate (grams) | Rate (oz.) | Rate (grams) | | |
| 15 | 2.0 | 56.70 | 3.3 | 93.56 | 1 | 1:100 |
| 20 | 2.7 | 76.55 | 4.5 | 127.58 | 1 | 1:100 |
| 30 | 4.0 | 113.40 | 6.7 | 189.95 | 1 | 1:100 |
| 40 | 5.4 | 153.09 | 9.0 | 255.15 | 1 | 1:100 |
| 60 | 8.0 | 226.80 | 13.4 | 379.89 | 1 | 1:100 |
| 80 | 10.8 | 306.18 | 18.0 | 510.30 | 1 | 1:100 |
| 100 | 13.5 | 382.73 | 22.5 | 637.88 | 1 | 1:100 |

For mild chlorosis – Drench plants with **Sprint 330** or **Sprint 138** beginning at 5 oz per 100 gals (141.75 g per 375 L)

For severe chlorosis – Drench plants with **Sprint 330** or **Sprint 138** beginning at 5-8 oz per 100 gals (141.75-226.8 g per 375 L), and repeat 14 days later with 5-8 oz per 100 gals (141.75-226.8 g per 375 L).

Conversion: 3 tsp = 3 Tbs and 3 Tbs = 1 oz

Storage and Disposal

Storage: Keep away from heat. Protect against moisture. Protect from direct sunlight. Store protected against freezing. Protect from temperatures below: 0 °C (32 °F). Changes in the properties of the product may occur if substance/product is stored below indicated temperature for extended periods of time. Protect from temperatures above: 45 °C (113 °F). Changes in the properties of the product may occur if substance/product is stored above indicated temperature for extended periods of time.

Waste Disposal of Substance: Must be disposed of or incinerated in accordance with local regulations.

Container Disposal: Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the substance/product.

Accidental Release Measures: Segregate from foods and animal feeds. Do not discharge into the subsoil/soil. Do not discharge into drains/surface waters/groundwater. For small amounts: Contain with dust binding material and dispose of. For large amounts: Sweep/shovel up. Dispose of absorbed material in accordance with regulations. Collect waste in suitable containers, which can be labeled and sealed. Clean contaminated floors and objects thoroughly with water and detergents, observing environmental regulations. Avoid raising dust.

This product does not require a hazard warning in accordance with GHS criteria.

State Right To Know Description and CAS # / TSRN

Proprietary Red dye / TSRN 161090809-5789

EMERGENCY CONTACT:

CHEMTREC 1-800-424-9300

BASF Corporation 1-800-832-HELP (4357)

Conditions of Sale and Warranty

The **Directions For Use** of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and must be followed carefully. However, it is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or use of the product in a manner inconsistent with its labeling, all of which are beyond the control of BASF CORPORATION ("BASF") or the Seller. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer. BASF warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the **Directions For Use**, subject to the inherent risks, referred to above. **TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BASF MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BUYER'S EXCLUSIVE REMEDY AND BASF'S EXCLUSIVE LIABILITY, WHETHER IN CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY, OR OTHERWISE, SHALL BE LIMITED TO REPAYMENT OF THE PURCHASE PRICE OF THE PRODUCT. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BASF AND THE SELLER DISCLAIM ANY LIABILITY FOR CONSEQUENTIAL, EXEMPLARY, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.** BASF and the Seller offer this product, and the Buyer and User accept it, subject to the foregoing **Conditions of Sale and Warranty** which may be varied only by agreement in writing signed by a duly authorized representative of BASF.

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