



When application selectivity is as important as effective weed and brush control vegetation managers can depend on Navius. Navius can be used on rights of way, roadsides, industrial sites, fence lines and other non-crop areas. It delivers extended, broad-spectrum control of broadleaf weeds and encroaching brush so managers can extend the time between applications, increase the productivity of their spray program resulting in time and cost savings.

Active Ingredients:	Metsulfuron-methyl 12.6% Aminocyclopyrachlor 39.5%
Mode of Action:	Auxinic and ALS inhibitor
Group:	2 and 4
Formulation:	Wettable Granule
Packaging:	Case = 8 x 1.361 kg

Key Strengths and Features

Efficacy

- Superior broad-spectrum control of over 40 weed species, including undesirable brush/woody plants in non-crop areas
- It promotes the grass understory and helps preserve desirable vegetation
- Two modes of action for effective resistance management
- Quickly taken up by the leaves, stems and roots of plants

Length of Control

- Warm moist conditions following treatment promotes activity of Navius
- Length of control is dependent on rate, condition, growth stage of target weeds, and environmental conditions during and after application
- Long term weed and brush control occurs when grasses and other desired vegetation are allowed to recover from adverse environmental conditions and compete with undesirable brush or weeds

Usage

- No grazing or haying restrictions
- Convenient and easy to use packaging
- Low-odor, dry formulation mixes easily and remains in suspension
- Rain-fast at 4 hours after application

Sustainability

- Low use rates per hectare for reduced chemical load on the environment
- Grazing animals do not have to be moved off the pasture or rangeland before, during or after applying Navius

Superior Value

 Brush and broadleaf weed control with one product

WEED AND BRUSH CONTROLLED - OVER 40 SPECIES INCLUDING:

Brush

Ash (Green, white)

Cherry (black, chokecherry, pin)

Manitoba maple/ box elder

Maple (red, sugar)

Oak (black, northern red)

Poplar (Balsam, black and yellow)

Spruce (black, Norway, white) Sumac

Tree of heaven

Trembling aspen

Willow (ditchbank)

Fir (Balsam, Douglas)

Broadleaf Weeds

Canada thistle Giant buttercup Knapweed (diffuse) White cockle Giant hogweed Leafy spurge Wild carrot Common tansy Hankweed (orange) Scentless Chamonile Wild rose Common yarrow

Hemp-nettle Yellow starthistle Western snowberry Dandelion

Environmental Fate

Volatility	Non-Volatile (Does not volatize from moist soil or water surfaces)
Half-life in soil	Aminocyclopyrachlor Range: 120 - 433 days Metsulfuron methyl Range: 26 to 54 days
Half-life in water	Aminocyclopyrachlor >365 days Metsulfuron methyl Range: 35 to 365 days

The active ingredients Metsulfuron-methyl and Aminocyclopyrachlor are designed to affect plant life. Navius is soluble in water and does not volatize from moist soil or water surfaces under field conditions. Navius is not expected to bio accumulate and is metabolized by soil microbes.

Wildlife Safety Assessment

Active ingredients in Navius are practically non-toxic to honey bees, birds, and mammals on an acute exposure basis.

Human Safety Assessment:

The acute toxicity of the active ingredients found in Navius is low via oral, dermal and inhalation routes of exposure. It is a moderate irritant to the eyes with no irritation to the skin. Not considered a skin sensitizer or carcinogenic.

Acute Oral Toxicity	LD ₅₀ > 5,000 mg/kg
Acute Dermal Toxicity	LD ₅₀ > 5,000 mg/kg
Acute inhalation toxicity	$LD_{50} > 5.18$ mg/l Exposure time: 4 h
Eye Irritation	Moderate irritating
Skin Irritation	Minimally irritating

Mode of Action

Aminocyclopyrachlor, an active ingredient in Navius herbicide, stops the growth of plants by interfering with hormonal balance necessary for normal shoot and root development. The herbicide has unique features acting via a distinctive mechanism that targets a family of auxin receptor complexes. Metsulfuron-methyl, a Group 2 herbicide, causes the rapid cessation of plant cell division and growth.



