

# Safety Data Sheet



## Tramat® 500 SC Selective Herbicide

Version 2 / AUS  
102000002286

Revision Date: 08.06.2021  
Print Date: 08.06.2021

### SECTION 1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

#### 1.1 Product identifier

**Trade name** Trammat® 500 SC Selective Herbicide  
**Product code (UVP)** 05934729

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

**Use** Herbicide

#### 1.3 Details of the supplier of the safety data sheet

**Supplier** Bayer Cropscience Pty Ltd  
ABN 87 000 226 022  
Level 1, 8 Redfern Road  
3123 Hawthorn East  
Victoria  
Australia

**Telephone** (03) 9248 6888  
**Telefax** (03) 9248 6800  
**Responsible Department** 1800 804 479 Technical Information Service  
**Website** [www.crop.bayer.com.au](http://www.crop.bayer.com.au)

#### 1.4 Emergency telephone no.

**Emergency telephone no.** 1800 033 111 IXOM Operations Pty Ltd

### SECTION 2. HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance or mixture

##### Classification in accordance with Australian GHS Regulation

Acute aquatic toxicity: Category 1  
H400 Very toxic to aquatic life.

Chronic aquatic toxicity: Category 1  
H410 Very toxic to aquatic life with long lasting effects.

#### 2.2 Label elements

No hazard label for supply/use required.

#### 2.3 Other hazards

No additional hazards known beside those mentioned.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Chemical nature



## Tramat® 500 SC Selective Herbicide

Version 2 / AUS  
102000002286

Revision Date: 08.06.2021  
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Ethofumesate 500g/l  
Suspension concentrate (=flowable concentrate)(SC)

| Chemical name                             | CAS-No.    | Concentration [%]  |
|---|------------|--------------------|
| Ethofumesate                              | 26225-79-6 | 44.30              |
| 1,2-Propanediol                           | 57-55-6    | >= 1.00 - <= 10.00 |
| 1,2-Benzisothiazol-3(2H)-one              | 2634-33-5  | > 0.005 - < 0.05   |
| Other ingredients (non-hazardous) to 100% |            |                    |

### SECTION 4. FIRST AID MEASURES

**If poisoning occurs, immediately contact a doctor or Poisons Information Centre (telephone 13 11 26), and follow the advice given. Show this Safety Data Sheet to the doctor.**

#### 4.1 Description of first aid measures

|                       |  |
|-----------------------|--|
| <b>General advice</b> | Move out of dangerous area. Place and transport victim in stable position (lying sideways). Remove contaminated clothing immediately and dispose of safely. When symptoms develop and persist, seek medical advice.                      |
| <b>Inhalation</b>     | Move to fresh air. Keep patient warm and at rest. Call a physician or poison control center immediately.   |
| <b>Skin contact</b>   | Wash off immediately with soap and plenty of water. Call a physician or poison control center immediately.   |
| <b>Eye contact</b>    | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a physician or poison control center immediately. |
| <b>Ingestion</b>      | Do NOT induce vomiting. Rinse mouth. Keep at rest. Call a physician or poison control center immediately.  |

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

|                 |  |
|-----------------|--|
| <b>Symptoms</b> | Local: To date no symptoms are known.<br>Systemic: Drowsiness, Headache, Lethargy, Dyspnoea, Ataxia, Tremors |
|-----------------|--|

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

|                  |   |
|------------------|---|
| <b>Treatment</b> | Local treatment: Initial treatment: symptomatic.<br>Systemic treatment: Initial treatment: symptomatic. Gastric lavage is not normally required. However, if a significant amount (more than a mouthful) has been ingested, administer activated charcoal and sodium sulphate. There is no specific antidote. |
|------------------|---|



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Version 2 / AUS  
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Revision Date: 08.06.2021  
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### SECTION 5. FIRE FIGHTING MEASURES

#### 5.1 Extinguishing media

**Suitable** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Unsuitable** High volume water jet

**5.2 Special hazards arising from the substance or mixture** Dangerous gases are evolved in the event of a fire. In the event of fire the following may be released: Carbon dioxide (CO<sub>2</sub>), Carbon monoxide (CO), Sulphur oxides

#### 5.3 Advice for firefighters

**Special protective equipment for firefighters** In the event of fire and/or explosion do not breathe fumes. Wear self-contained breathing apparatus and protective suit.

**Further information** Remove product from areas of fire, or otherwise cool containers with water in order to avoid pressure being built up due to heat. Whenever possible, contain fire-fighting water by diking area with sand or earth. Do not allow run-off from fire fighting to enter drains or water courses.

**Hazchem Code** •3Z

### SECTION 6. ACCIDENTAL RELEASE MEASURES

#### 6.1 Personal precautions, protective equipment and emergency procedures

**Precautions** Keep people away from and upwind of spill/leak. Avoid contact with spilled product or contaminated surfaces. Use personal protective equipment. When dealing with a spillage do not eat, drink or smoke.

**6.2 Environmental precautions** Retain and dispose of contaminated wash water. Do not allow to get into surface water, drains and ground water. If the product contaminates rivers and lakes or drains inform respective authorities.

#### 6.3 Methods and materials for containment and cleaning up

**Methods for cleaning up** Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Collect and transfer the product into a properly labelled and tightly closed container. Clean contaminated floors and objects thoroughly, observing environmental regulations.

**Additional advice** Check also for any local site procedures.

**6.4 Reference to other sections** Information regarding safe handling, see section 7.  
Information regarding personal protective equipment, see section 8.  
Information regarding waste disposal, see section 13.

### SECTION 7. HANDLING AND STORAGE

#### 7.1 Precautions for safe handling



**Tramat® 500 SC Selective Herbicide**

Version 2 / AUS  
102000002286

Revision Date: 08.06.2021  
Print Date: 08.06.2021

- Advice on safe handling** Use only in area provided with appropriate exhaust ventilation.
- Advice on protection against fire and explosion** No special precautions required.
- Hygiene measures** Avoid contact with skin, eyes and clothing. Keep working clothes separately. Wash hands before breaks and immediately after handling the product. After each day's use, wash gloves, face shield or goggles and contaminated clothing. Remove soiled clothing immediately and clean thoroughly before using again. Garments that cannot be cleaned must be destroyed (burnt).
- 7.2 Conditions for safe storage, including any incompatibilities**
- Requirements for storage areas and containers** Store in original container. Store in a place accessible by authorized persons only. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from direct sunlight. Protect from freezing.
- Advice on common storage** Keep away from food, drink and animal feedingstuffs.

**SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

**8.1 Control parameters**

| Components  | CAS-No.    | Control parameters                      | Update  | Basis    |
|---|------------|---|---------|----------|
| Ethofumesate  | 26225-79-6 | 10 mg/m <sup>3</sup><br>(TWA)           |         | OES BCS* |
| 1,2-Propanediol<br>(Total vapour and particulates.) | 57-55-6    | 474 mg/m <sup>3</sup> /150 ppm<br>(TWA) | 12 2011 | AU NOEL  |
| 1,2-Propanediol<br>(Particulate.)                   | 57-55-6    | 10 mg/m <sup>3</sup><br>(TWA)           | 12 2011 | AU NOEL  |

\*OES BCS: Internal Bayer AG, Crop Science Division "Occupational Exposure Standard"

**8.2 Exposure controls**

- Respiratory protection** Respiratory protection is not required under anticipated circumstances of exposure. Respiratory protection should only be used to control residual risk of short duration activities, when all reasonably practicable steps have been taken to reduce exposure at source e.g. containment and/or local extract ventilation. Always follow respirator manufacturer's instructions regarding wearing and maintenance.
- Hand protection** Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. Wash gloves when contaminated. Dispose of when contaminated inside, when perforated or when contamination on the outside cannot be removed. Wash hands frequently and always before eating, drinking, smoking or using the toilet.



## Tramat® 500 SC Selective Herbicide

Version 2 / AUS  
102000002286

Revision Date: 08.06.2021  
Print Date: 08.06.2021

|                      |  |
|----------------------|--|
| Material             | Nitrile rubber                           |
| Rate of permeability | > 480 min                                |
| Glove thickness      | > 0.4 mm                                 |
| Protective index     | Class 6                                  |
| Directive            | Protective gloves complying with EN 374. |

**Eye protection** Wear goggles (conforming to EN166, Field of Use = 5 or equivalent).

**Skin and body protection** Wear standard coveralls and Category 3 Type 6 suit.  
If there is a risk of significant exposure, consider a higher protective type suit.  
Wear two layers of clothing wherever possible. Polyester/cotton or cotton overalls should be worn under chemical protection suit and should be professionally laundered frequently.  
If chemical protection suit is splashed, sprayed or significantly contaminated, decontaminate as far as possible, then carefully remove and dispose of as advised by manufacturer.

**General protective measures** In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the above mentioned recommendations would apply.

### Engineering Controls

**Advice on safe handling** Use only in area provided with appropriate exhaust ventilation.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

|   |                                |
|---|--------------------------------|
| <b>Form</b>   | suspension                     |
| <b>Colour</b>   | brown                          |
| <b>Odour</b>  | characteristic                 |
| <b>Odour Threshold</b>                                    | No data available              |
| <b>pH</b>   | 6.0 - 7.5 (100 %) (23 °C)      |
| <b>Melting point/range</b>                                | No data available              |
| <b>Boiling Point</b>                                      | No data available              |
| <b>Flash point</b>  | Not relevant; aqueous solution |
| <b>Flammability</b>                                       | No data available              |
| <b>Auto-ignition temperature</b>                          | No data available              |
| <b>Thermal decomposition</b>                              | No data available              |
| <b>Ignition temperature</b>                               | 501 °C                         |
| <b>Minimum ignition energy</b>                            | No data available              |
| <b>Self-accelerating decomposition temperature (SADT)</b> | No data available              |
| <b>Upper explosion limit</b>                              | No data available              |
| <b>Lower explosion limit</b>                              | No data available              |

# Safety Data Sheet



## Tramat® 500 SC Selective Herbicide

Version 2 / AUS  
102000002286

Revision Date: 08.06.2021  
Print Date: 08.06.2021

|   |   |
|---|---|
| <b>Vapour pressure</b>                        | No data available   |
| <b>Evaporation rate</b>                       | No data available   |
| <b>Relative vapour density</b>                | No data available   |
| <b>Relative density</b>                       | No data available   |
| <b>Density</b>                                | ca. 1.13 g/cm <sup>3</sup> (20 °C)  |
| <b>Water solubility</b>                       | miscible  |
| <b>Partition coefficient: n-octanol/water</b> | Ethofumesate: log Pow: 2.7 (25 °C)  |
| <b>Viscosity, dynamic</b>                     | 200 - 450 mPa.s (20 °C)<br>Velocity gradient 20 /s<br>100 - 180 mPa.s (20 °C)<br>Velocity gradient 100 /s |
| <b>Viscosity, kinematic</b>                   | No data available   |
| <b>Surface tension</b>                        | 40 mN/m (25 °C)<br>Determined in the undiluted form.  |
| <b>Oxidizing properties</b>                   | No oxidizing properties   |
| <b>Explosivity</b>                            | Not explosive   |
| <b>9.2 Other information</b>                  | Further safety related physical-chemical data are not known.  |

### SECTION 10. STABILITY AND REACTIVITY

|  |  |
|--|--|
| <b>10.1 Reactivity</b>                         | Stable under normal conditions.  |
| <b>10.2 Chemical stability</b>                 | Stable under recommended storage conditions.   |
| <b>10.3 Possibility of hazardous reactions</b> | No hazardous reactions when stored and handled according to prescribed instructions. |
| <b>10.4 Conditions to avoid</b>                | Extremes of temperature and direct sunlight.   |
| <b>10.5 Incompatible materials</b>             | Store only in the original container.  |
| <b>10.6 Hazardous decomposition products</b>   | Thermal decomposition can lead to release of:<br>Toxic gases/vapours                 |

### SECTION 11. TOXICOLOGICAL INFORMATION

#### 11.1 Information on toxicological effects

|                                  |                          |
|----------------------------------|--------------------------|
| <b>Acute oral toxicity</b>       | LD50 (Rat) > 2,100 mg/kg |
| <b>Acute inhalation toxicity</b> | No data available        |
| <b>ATE (Mix)</b>                 | > 5 mg/l                 |

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Version 2 / AUS  
102000002286

Revision Date: 08.06.2021  
Print Date: 08.06.2021

|  |  |
|--|--|
| <b>II</b>                                | Calculation method   |
| <b>Acute dermal toxicity</b>             | LD50 (Rat) > 4,100 mg/kg   |
| <b>Skin corrosion/irritation</b>         | No skin irritation (Rabbit)  |
| <b>Serious eye damage/eye irritation</b> | No eye irritation (Rabbit)   |
| <b>Respiratory or skin sensitisation</b> | Skin: Non-sensitizing (Guinea pig)<br>OECD Test Guideline 406, Buehler test<br>Skin: Non-sensitizing (Mouse)<br>OECD Test Guideline 429, local lymph node assay (LLNA) |

### Assessment mutagenicity

Ethofumesate was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

### Assessment carcinogenicity

Ethofumesate was not carcinogenic in lifetime feeding studies in rats and mice.

### Assessment toxicity to reproduction

Ethofumesate did not cause reproductive toxicity in a two-generation study in rats.

### Assessment developmental toxicity

Ethofumesate did not cause developmental toxicity in rats and rabbits.

### Assessment STOT Specific target organ toxicity – single exposure

Ethofumesate: Based on available data, the classification criteria are not met.

### Assessment STOT Specific target organ toxicity – repeated exposure

Ethofumesate did not cause specific target organ toxicity in experimental animal studies.

### Aspiration hazard

Based on available data, the classification criteria are not met.

### Information on likely routes of exposure

May be harmful if inhaled.  
May cause skin irritation.  
May cause eye irritation.  
Harmful if swallowed.

### Early onset symptoms related to exposure

Refer to Section 4

### Delayed health effects from exposure

Refer to Section 11

### Exposure levels and health effects

Refer to Section 4

### Interactive effects

Not known

### When specific chemical data is not available

Not applicable



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Version 2 / AUS  
102000002286

Revision Date: 08.06.2021  
Print Date: 08.06.2021

**Mixture of chemicals**

Refer to Section 2.1

**Further information**

No further toxicological information is available.

**SECTION 12. ECOLOGICAL INFORMATION**

**12.1 Toxicity**

**Toxicity to fish**

LC50 (Cyprinus carpio (Carp)) = 32.6 mg/l  
semi-static test; Exposure time: 96 h



LC50 (Danio rerio (Zebra fish)) = 68.8 mg/l  
semi-static test; Exposure time: 96 h

**Toxicity to aquatic invertebrates**

EC50 (Daphnia magna (Water flea)) 93.2 mg/l  
Exposure time: 48 h



**Chronic toxicity to aquatic invertebrates**

NOEC (Daphnia magna (Water flea)) = 0.64 mg/l  
Exposure time: 21 d

**Toxicity to aquatic plants**

ErC50 (Desmodesmus subspicatus (green algae)) = 9.7 mg/l  
static test; Exposure time: 96 h



NOEC (Desmodesmus subspicatus (green algae)) = 2.2 mg/l  
static test; Exposure time: 96 h



ErC50 (Myriophyllum spicatum (Eurasian watermilfoil)) = 0.848 mg/l  
static test; Exposure time: 14 d



NOEC (Myriophyllum spicatum (Eurasian watermilfoil)) = 0.012 mg/l  
Growth rate; Exposure time: 14 d

**Toxicity to other organisms**

LD50 (Colinus virginianus (Bobwhite quail)) > 8,743 mg/kg  
The value mentioned relates to the active ingredient ethofumesate.

LD50 (Anas platyrhynchos (Mallard duck)) > 3,552 mg/kg  
The value mentioned relates to the active ingredient ethofumesate.

LD50 (Apis mellifera (bees)) > 0.05 mg/kg  
Exposure time: 48 h  
The value mentioned relates to the active ingredient ethofumesate.

**12.2 Persistence and degradability**

**Biodegradability**

Ethofumesate:  
Not rapidly biodegradable

**Koc**

Ethofumesate: Koc: 147

**12.3 Bioaccumulative potential**

**Bioaccumulation**

Ethofumesate: Bioconcentration factor (BCF) 144  
Does not bioaccumulate.

**12.4 Mobility in soil**

**Mobility in soil**

Ethofumesate: Moderately mobile in soils

**12.5 Other adverse effects**

**Additional ecological**

No other effects to be mentioned.





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Version 2 / AUS  
102000002286

Revision Date: 08.06.2021  
Print Date: 08.06.2021

**information**

**SECTION 13. DISPOSAL CONSIDERATIONS**

Triple-rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush, or puncture and deliver empty packaging to an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 500 mm below the surface in a disposal pit specifically marked and set up for this purpose, clear of waterways, desirable vegetation and tree roots, in compliance with relevant Local, State or Territory government regulations. Do not burn empty containers or product. Do not reuse container for any other purpose.

**SECTION 14. TRANSPORT INFORMATION**

**ADG**

|                            |   |
|----------------------------|---|
| UN number                  | <b>3082</b>   |
| Transport hazard class(es) | 9   |
| Subsidiary Risk            | None  |
| Packaging group            | III   |
| Description of the goods   | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (ETHOFUMESATE SOLUTION) |
| Hazchem Code               | •3Z   |

AU01: Environmentally Hazardous Substances meeting the descriptions of UN 3077 or UN 3082 are not subject to this Code when transported by road or rail in;  
a) packagings that do not incorporate a receptacle exceeding 500 kg(L); or  
b) IBCs

**IMDG**

|                            |   |
|----------------------------|---|
| UN number                  | <b>3082</b>   |
| Transport hazard class(es) | 9   |
| Subsidiary Risk            | None  |
| Packaging group            | III   |
| Marine pollutant           | YES   |
| Description of the goods   | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (ETHOFUMESATE SOLUTION) |

**IATA**

|                            |  |
|----------------------------|--|
| UN number                  | <b>3082</b>  |
| Transport hazard class(es) | 9  |
| Subsidiary Risk            | None   |
| Packaging group            | III  |
| Environm. Hazardous Mark   | YES  |
| Description of the goods   | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (ETHOFUMESATE SOLUTION ) |



## Tramat® 500 SC Selective Herbicide

Version 2 / AUS  
102000002286

Revision Date: 08.06.2021  
Print Date: 08.06.2021

### SECTION 15. REGULATORY INFORMATION

Registered according to the Agricultural and Veterinary Chemicals Code Act 1994  
Australian Pesticides and Veterinary Medicines Authority approval number: 39508

#### SUSMP classification (Poison Schedule)

Schedule 5 (Standard for the Uniform Scheduling of Medicines and Poisons)

### SECTION 16. OTHER INFORMATION

**Trademark information** Tramat® is a Registered Trademark of the Bayer Group.

#### Abbreviations and acronyms

|           |  |
|-----------|--|
| ADN       | European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways  |
| ADR       | European Agreement concerning the International Carriage of Dangerous Goods by Road  |
| ATE       | Acute toxicity estimate  |
| AU OEL    | Australia. OELs. (Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment)  |
| CAS-Nr.   | Chemical Abstracts Service number  |
| CEILING   | Ceiling Limit Value  |
| Conc.     | Concentration  |
| EC-No.    | European community number  |
| ECx       | Effective concentration to x %   |
| EINECS    | European inventory of existing commercial substances   |
| ELINCS    | European list of notified chemical substances  |
| EN        | European Standard  |
| EU        | European Union   |
| IATA      | International Air Transport Association  |
| IBC       | International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code)   |
| ICx       | Inhibition concentration to x %  |
| IMDG      | International Maritime Dangerous Goods   |
| LCx       | Lethal concentration to x %  |
| LDx       | Lethal dose to x %   |
| LOEC/LOEL | Lowest observed effect concentration/level   |
| MARPOL    | MARPOL: International Convention for the prevention of marine pollution from ships   |
| N.O.S.    | Not otherwise specified  |
| NOEC/NOEL | No observed effect concentration/level   |
| OECD      | Organization for Economic Co-operation and Development   |
| OES BCS   | OES BCS: Internal Bayer AG, Crop Science Division "Occupational Exposure Standard"   |
| PEAK      | PEAK: Exposure Standard - Peak means a maximum or peak airborne concentration of a particular substance determined over the shortest analytically practicable period of time which does not exceed 15 minutes. |
| RID       | Regulations concerning the International Carriage of Dangerous Goods by Rail   |
| SK-SEN    | Skin sensitiser  |
| SKIN_DES  | SKIN_DES: Skin notation: Absorption through the skin may be a significant source of exposure.  |

# Safety Data Sheet



## Tramat® 500 SC Selective Herbicide

Version 2 / AUS  
102000002286

Revision Date: 08.06.2021  
Print Date: 08.06.2021

|      |  |
|------|--|
| STEL | STEL: Exposure standard - short term exposure limit (STEL): A 15 minute TWA exposure which should not be exceeded at any time during a working day even if the eight-hour TWA average is within the TWA exposure standard. Exposures at the STEL should not be longer than 15 minutes and should not be repeated more than four times per day. There should be at least 60 minutes between successive exposures at the STEL. |
| TWA  | TWA: Exposure standard - time-weighted average (TWA): The average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day working week.  |
| TWA  | Time weighted average  |
| UN   | United Nations   |
| WHO  | World health organisation  |

This SDS summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this SDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products.

If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company.

Our responsibility for products sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available on request.

|                             |  |
|-----------------------------|--|
| <b>Reason for Revision:</b> | The following sections have been revised: Section 2: Hazards Identification. Section 3: Composition / Information on Ingredients. Section 4: First Aid Measures. Section 9: Physical and Chemical Properties. Section 11: Toxicological Information. Section 12. Ecological information. |
|-----------------------------|--|

|  |
|--|
| Changes since the last version are highlighted in the margin. This version replaces all previous versions. |
|--|