

NOTICE

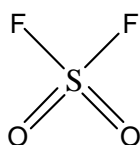
Sulfuryl Fluoride

The Australian Pesticides and Veterinary Medicines Authority (APVMA) has before it an application for the approval of sulfuryl fluoride, a new active constituent for use in agricultural chemical products. Sulfuryl fluoride is an insecticide and has a complex mode of action. The toxic effect is primarily through the action of fluoride anion. The fluoride anion disrupts the glycolysis and fatty acid cycles, depriving the insect of necessary cellular energy.

In accordance with section 12 of the Agvet Code, the APVMA invites any person to submit a relevant written submission as to whether the application for approval of sulfuryl fluoride should be granted. Submissions should state the grounds on which they are based. Such grounds should relate only to the matters that the APVMA is required to take into account in deciding whether to grant the approval. Comments must be received by the APVMA within 28 days of the date of this Gazette.

Particulars of Active Constituent

Common Name:	Sulfuryl fluoride
IUPAC Name:	Sulfuryl fluoride
CA Name:	Sulfuryl fluoride
CAS Number:	002699-79-8
Minimum Purity:	994 g/kg
Molecular Formula:	SO ₂ F ₂
Molecular Weight:	102.1 gmol ⁻¹
Structure:	



Mode of Action:	Disrupts the glycolysis and citric acid cycles.
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Summary of the APVMA's Evaluation of Sulfuryl Fluoride Active Constituent

The Chemistry and Residues Program of the APVMA has evaluated the chemistry aspects of sulfuryl fluoride active constituent (manufacturing process, quality control procedures, batch analysis results and analytical methods) and found them to be acceptable.

On the basis of the data provided, and the toxicological assessment, it is proposed that the following APVMA Active Constituent Standard be established for sulfuryl fluoride active constituent:

Constituent	Specification	Level
Sulfuryl fluoride	Sulfuryl fluoride	Not less than 993 g/kg

Compounds of toxicological significance are not expected to occur in sulfuryl fluoride as a result of the raw materials and the synthetic route used.

The Office of Chemical Safety (OCS) of the Department of Health and Ageing has considered the toxicological aspects of sulfuryl fluoride, and advised that there are no toxicological objections to the approval of this chemical.

An Acceptable Daily Intake (ADI) of 0.01 mg/kg bw/day has been set based on a no observed effect concentration (NOEC) of 20 ppm in a 24 month toxicity study in rats, and applying a 100-fold safety factor. An Acute Reference Dose (ARfD) has been set at 0.3 mg/kg based on a NOEC of 300 ppm in rats and applying a 100 fold safety factor.

The National Drugs and Poisons Schedule Committee (NDPSC) has considered sulfuryl fluoride to be appropriate for inclusion in Schedule 6 (Poison) of the Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP).

The APVMA accepts the findings and recommendations of its advisers on these criteria.

The APVMA is satisfied that the proposed importation and use of sulfuryl fluoride would not be an undue toxicological hazard to the safety of people exposed to it during its handling and use.

Written submissions on the APVMA's proposal to grant approval for sulfuryl fluoride should be addressed in writing to:

Dr Paul Sethi
Chemistry Manager
Chemistry and Residues Program
Australian Pesticides and Veterinary Medicines Authority
PO Box E240
KINGSTON ACT 2604

Phone: (02) 6210 4821
Fax: (02) 6210 4840

[Back to Table of Contents](#)