

# Acetaldehyde Oxime (AAO)

## Description

**Acetaldehyde oxime (AAO)** is an essential chemical intermediate used in the production of pesticides that are used to protect crops from insect and fungus infestation. AAO is also used in zinc phosphate coating compositions.

## Physical and Chemical Properties

Typical Properties	Specifications
Mixture	50 Weight % (Wt. %) Acetaldehyde Oxime / 50 Wt. % Water
CAS Number	107-29-9
EC Number	Not applicable
Molecular Weight (MW) Mixture	38.55 g/mol
Density	0.98 g/mL @ 20°C (68°F)
Viscosity	0.64 cP @ 20°C
Boiling Point*	107°C (224.6°F)
Melting Point*	Two crystalline forms: 46.5°C (115.7°F), 12°C (53.6°F) for $\alpha$ - and $\beta$ -types, respectively
Boiling Point Mixture 50:50 (Wt. % / Wt. %)	95.5°C ca (203.9°F)
Melting Point Mixture	Not Determined
Flash Point 50:50 (Wt. % / Wt. %)	56°C (132.8°F)
pH	8 - 9
Solubility in Water	Completely miscible
Vapor Pressure	20.2 mmHg @ 20°C

\*Pure acetaldehyde oxime; not applicable to a mixture.

## Product Specifications and Test Methods

Parameters	Value	Test Method
Acetaldehyde Oxime, %	49.0 min. 51.0 max.	QAAA0-0001 Or QAAA0-0010
Acetaldehyde, %	0.10 max.	QAAA0-0012
Acetonitrile, %	0.10 max.	QAAA0-0012
Methyl Ethyl Ketoxime, %	0.50 max.	QAAA0-0012
Alkalinity (as NH <sub>3</sub> ), %	0.1 max.	QAAA0-0004
Iron (as Fe), ppm	1.0 max.	QAAA0-0008
pH	8.0 min. 9.0 max.	QAAA0-0007

The values presented in this data sheet are typical values and are not to be interpreted as product specifications.

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## AAO Solution, 50% Weight in Water

Chemical Name	CAS No.	Concentration	Formula	MW
Acetaldehyde Oxime	107-29-9	49.0 - 51.0 Wt. %	CH <sub>3</sub> CHNOH	59.07
Water	7732-18-5	49.0 - 51.0 Wt. %	H <sub>2</sub> O	18.02
Acetaldehyde	75-07-0	< or = 0.10 Wt. %	CH <sub>3</sub> CHO	44.05

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### Contact AdvanSix

To learn more about

Acetaldehyde Oxime, visit

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