

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 α - and β -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 ₃), %	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 ₃ CHNOH	59.07
Water	7732-18-5	49.0 - 51.0 Wt. %	H ₂ O	18.02
Acetaldehyde	75-07-0	< or = 0.10 Wt. %	CH ₃ CHO	44.05

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Contact AdvanSix

To learn more about

Acetaldehyde Oxime, visit

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