

Product Specification Sheet

AMA (Fast Deprotection Solution)

50% conc. Ammonia and 50% Methylamine solution (v/v)

Catalog Number:	NC-0902		
Product Name:	AMA		
Description:	50:50 mixture of Ammonium hydroxide and aqueous Methylamine (v/v)		
CAS Number:	Ammonium hydroxide solution, 32%	1336-21-6	
	Methylamine solution, 40 wt.% in water	74-89-5	

Quality Assurance Data	Specification
Appearance (Color)	colorless to almost colorless
Appearance (Form)	clear liquid
Concentration of NH₃ in used ammonium hydroxide solution	30.0 – 33.0 %
Concentration of Methylamine in used methylamine solution	39.0 – 42.0 %

Application: With AMA the cleavage of the oligonucleotide from the support is accomplished in 5 minutes at room temperature. The deprotection step is carried out at 65°C for a further 5 minutes. Deprotection can also be carried out at lower temperatures as shown in Table. In all cases, no base modification has been observed.

Using AMA, the order of hydrolysis of the base protecting groups is the acetyl group on dC, followed by the benzoyl group on dA, and then the iBu groups from dG. The hydrolysis of Ac-dC is almost instantaneous, thereby precluding the unwanted transamination reaction to the side-product N-Me-dC possible with alkylamine deprotection.

AMA deprotection should not be used in the presence of sensitive labels such as fluorescein or TAMRA.

Time	Temperature
5 min	65°C
10 min	55°C
30 min	37°C
90 min	25°C

Notes: If the AMA reagent was made up, store tightly sealed in a glass bottle in the refrigerator. The reagent does not decompose but routine opening will lose some of the volatile bases. Dispose properly after 4-6 weeks.

Shipping: Ambient

Storage: Ambient

For safety instructions see GHS label! The use of this product is strictly limited to trained personnel for professional manufacturing, laboratory, or research purposes. Final Fitness-For-Use must be determined by and is the sole responsibility of the end-user.