

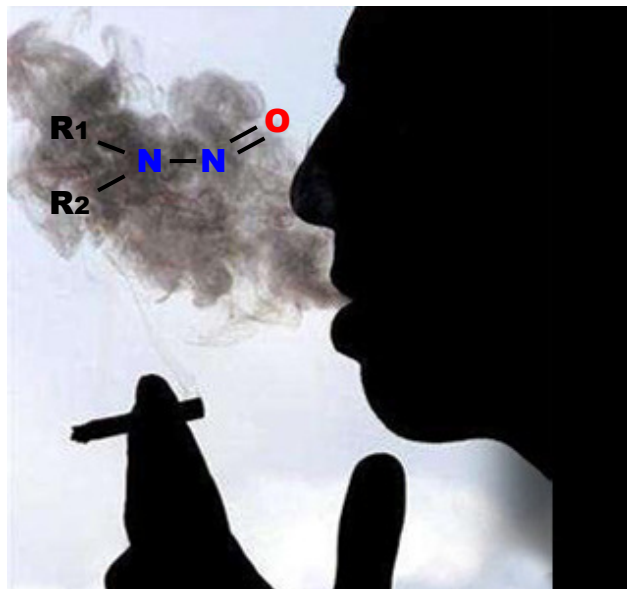
BMF 55 - Nitrosamines

Chiron has built up a strong track record of supplying new reference standards during the past 28 years of operation. We are now proud to announce our offer of nitrosamine reference standards.

The basis of a good analytical method is the availability of appropriate standards of defined purity and concentration.

Our mission is to market highly purified calibrates in crystalline as well as standardized solutions for chemical analysis, including internal standards. Your benefits using our standards include:

- **Fast turnover time due to excellent service**
- **Guaranteed high and consistent quality**
- **Sufficient capacity to serve the market, and bulk quantities available on request**
- **Custom solutions and custom synthesis on request.**
- **We continuously develop new and innovative products.**



Nitrosamines are a class of chemical compounds that have received much attention since 1956, when two British scientists, John Barnes and Peter Magee, reported that dimethylnitrosamine produced liver tumors in rats. Nitrosamines are formed by reactions of nitrits and secondary amines (e.g. in proteins) under acidic conditions like gastric milieus. Human beings ingest nitrits from food, esp. fried or grilled meat and vegetables. Disposal of tobacco products also causes a high intake of nitrosamines (mainly N-Nitrosornicotin). Also chemical industry is responsible for exposure of nitrosamines e.g. the rubber manufacturing and metal industry.

Chiron provides several native nitrosamines and internal standards (according to EPA 621)

Native nitrosamines for EPA 621

Product No	Name	Description	Conc.	Solvent	QTY
9004.2-2K-DC	<i>N-Nitrosodimethylamine</i>	NDMA	2000µg/mL	DCM	1mL
9004.2-100MG	<i>N-Nitrosodimethylamine</i>	NDMA	neat	neat	100 mg
9005.3-2K-DC	<i>N-Nitrosomethylethylamine</i>	NMEA	2000µg/mL	DCM	1mL
9005.3-100MG	<i>N-Nitrosomethylethylamine</i>	NMEA	neat	neat	100 mg
9006.4-2K-DC	<i>N-Nitrosodiethylamine</i>	NDEA	2000µg/mL	DCM	1mL
9006.4-100MG	<i>N-Nitrosodiethylamine</i>	NDEA	neat	neat	100 mg
9007.6-2K-DC	<i>N-Nitrosodi-n-propylamine</i>	NDPA	2000µg/mL	DCM	1mL
9007.6-100MG	<i>N-Nitrosodi-n-propylamine</i>	NDPA	neat	neat	100 mg
9008.8-2K-DC	<i>N-Nitrosodi-n-butylamine</i>	NDBA	2000µg/mL	DCM	1mL
9009.4-2K-DC	<i>N-Nitrosopyrrolidine</i>	NPYR	2000µg/mL	DCM	1mL
9009.4-100MG	<i>N-Nitrosopyrrolidine</i>	NPYR	neat	neat	100 mg
9010.5-2K-DC	<i>N-Nitrosopiperidine</i>	NIPI	2000µg/mL	DCM	1mL
9010.5-100MG	<i>N-Nitrosopiperidine</i>	NIPI	neat	neat	100 mg

Internal standards for EPA 621

Product No	Name	Description	Conc.	Solvent	QTY
9011.2-K-DC	N-Nitrosodimethylamine-d6	NDMA-d6	1000µg/mL	DCM	1mL
9012.3-K-DC	N-Nitrosomethylethylamine-d3	NMEA-d3	1000µg/mL	DCM	1mL
9013.4-K-DC	N-Nitrosodiethylamine-d10	NDEA-d10	1000µg/mL	DCM	1mL
9014.6-K-DC	N-Nitrosodi-n-propylamine-d14	NDPA-d14	1000µg/mL	DCM	1mL
9015.8-K-DC	N-Nitrosodi-n-butylamine-d18	NDBA-d18	1000µg/mL	DCM	1mL
9016.4-K-DC	N-Nitrosopyrrolidine-d8	NPYR-d8	1000µg/mL	DCM	1mL
9017.5-K-DC	N-Nitrosopiperidine-d10	NPIP-d10	1000µg/mL	DCM	1mL

Other nitrosamines

Product No	Name	Description	Conc.	Solvent	QTY
1703.10-K-AN	4-(N-Methyl-N-nitrosamino)-1-(3-pyridyl)-1-butanone		1000µg/mL	acetonitrile	1mL
2743.12-K-IP	N-Nitroso-di-n-hexylamine		1000µg/mL	isopropanol	1mL
9688.8-K-AN	N-Nitroso-N-ethylaniline		1000µg/mL	acetonitrile	1mL
8926.2-K-AN	N-Nitroso-N-methylurea	NMU	1000µg/mL	acetonitrile	1mL
8986.4-K-AN	N-Nitrosopiperazine		1000µg/mL	acetonitrile	1mL
8986.4-100MG	N-Nitrosopiperazine		neat	neat	100mg
9018.7-K-AN	N-Nitrosomethylphenylamine		1000µg/mL	acetonitrile	1mL
9019.4-K-AN	1,4-Dinitrosopiperazine		1000µg/mL	acetonitrile	1mL
9019.4-100MG	1,4-Dinitrosopiperazine		neat	neat	100mg
9326.4-K-AN	N-Nitrosomorpholine		1000µg/mL	acetonitrile	1mL
9326.4-100MG	N-Nitrosomorpholine		neat	neat	100mg
9328.12-K-AN	N-Nitrosodiphenylamine	Ndiphen	1000µg/mL	acetonitrile	1mL
9666.4-K-AN	N-Nitrosodiethanolamine		1000µg/mL	acetonitrile	1mL
9666.4-100MG	N-Nitrosodiethanolamine		neat	neat	100mg

Other nitrosoamine internal standards

Product No	Name	Conc.	Solvent	QTY
9327.4-100-AN	4-Nitrosomorpholine-d8	100µg/mL	acetonitrile	1mL
9022.4-100-AN	1,4-Dinitrosopiperazine-d8	100µg/mL	acetonitrile	1mL
1707.10-K-AN	4-(N-Methyl-N-nitrosamino)-1-(3-pyridyl)-1-butanone-d4	1000µg/mL	acetonitrile	1mL

Nicotine nitrosamines including internal standards

Product No	Name	Conc.	Solvent	QTY
1702.9-K-AN	N-Nitrosornicotine	1000µg/mL	acetonitrile	1mL
1706.9-K-AN	DL-N-Nitrosornicotine-d4	1000µg/mL	acetonitrile	1mL
1706.9-K-2AN	DL-N-Nitrosornicotine-d4	1000µg/mL	acetonitrile	2mL
1705.10-K-AN	(RS)-N-Nitrosoanatabine	1000µg/mL	acetonitrile	1mL
1704.10-K-AN	(RS)-N-Nitrosoanabasine	1000µg/mL	acetonitrile	1mL

We are steadily updating our product portfolio to reflect the market for reference standards and we are proud to present our new developed nitrosamine:

Product No	Name	Conc.	Solvent	QTY
9329.14-K-AN	N-Nitrosodibenzylamine	1000µg/mL	acetonitrile	1mL

