

## CARBAMATES

<b>Test Description</b>	Determination of N-Methylcarbamoyloximes and N-Methylcarbamates in water.
<b>Test Use</b>	Useful for evaluating carbamates in ground water and drinking water.
<b>Test Department</b>	Organic Chemistry: Phone 860-920-6581/6693 Fax 860-920-6703
<b>Methodology</b>	EPA Method 531.1: Direct Aqueous Injection HPLC with Post Column Derivitization
<b>Availability</b>	Year-round
<b>Sample Requirements</b>	Three (3) 60-mL samples
<b>Container type /Preservative</b>	60-mL amber glass screw cap vials; caps equipped with PTFE-faced silicone septa. 5 mg Sodium Thiosulfate preservative for chlorinated samples. 1.8 mL Monochloroacetic acid buffer preservative added to all samples (for chlorinated samples, must be added after Sodium Thiosulfate salt is dissolved).
<b>Collection Instructions (Note 1)</b>	For taps, remove aerators and let water run 4-5 minutes. For outdoor locations, sampling location should be in accordance with a preapproved quality assurance project plan.
<b>Sample Holding Time &amp; Transport</b>	Samples are iced or refrigerated at 4°±2°C from time of collection until analysis. Samples held at 4°±2°C and at pH<3 are stable for 28 days from time of collection.
<b>Unacceptable Conditions</b>	Incomplete requisition form. Insufficient sample volume. Samples received beyond the 28-day holding time. Improper collection/container/preservative.
<b>Requisition Form</b>	Use the Organics/Radiation Water Examination request form.
<b>Required Information</b>	Fill out entire requisition form.
<b>Limitations</b>	Oxamyl, 3-Hydrofuran, Aldicarb Sulfoxide and Carbaryl degrade quickly in neutral/basic waters at room temperature. Samples to be analyzed for these compounds must be preserved at pH=3 and be held at 4°±2°C until analysis to minimize analyte degradation.
<b>Additional Comments</b>	See <a href="#">Table 1</a> for list of compounds which the CT PHL can be determine by this method.

Note 1: See *New England States Environmental Sampling Guide*, latest edition.

<https://www.epa.gov/sites/production/files/2015-06/documents/NE-States-Sample-Collection-Manual.pdf>

*Table 1. Compounds Determinable by EPA Method 531.1*

<b>Name</b>	<b>CAS Number</b>	<b>Comments</b>
Aldicarb	116-06-3	Regulated by EPA
Aldicarb Sulfone	1646-88-4	Regulated by EPA
Aldicarb Sulfoxide	1646-87-3	Regulated by EPA
Propoxur (Baygon)	114-26-1	
Carbaryl (Sevin)	63-25-2	
Carbofuran	1563-66-2	Regulated by EPA
3-Hydroxycarbofuran	16655-82-6	
Methiocarb	2032-65-7	
Methomyl	16752-65-7	
Oxamyl	23135-22-0	Regulated by EPA