

Analytical Lists for Pesticide Incident Investigation

Guidance Document 26

The Minnesota Department of Agriculture (MDA) has prepared the following standard analytical lists for soil and ground water analyses at pesticide incident investigations. At typical pesticide incident sites, the MDA staff will require that soil and ground water samples be analyzed for all of the pesticides listed on one or more of the following lists plus any pesticides not on a list which are a concern at that site. The actual MDA requirements for each incident investigation are always site specific.

The Quality Assurance/Quality Control (QA/QC) plan and analytical methods used by the proposed commercial laboratory must be pre-approved by MDA **for each pesticide incident investigation**. Lists of commercial laboratories that are pre-approved for the pesticides listed below can be found in guidance document [GD23 - Pre-approved Commercial Laboratories: Fixed Base and Mobile](#). The laboratory pre-approval process and required information is described in [GD24 - Fixed Base Laboratory Quality Assurance/Quality Control Plans](#). Guidance document 24 also describes the requirements for pre-approval of analysis of other compounds not included on the pesticide analytical lists below.

Pesticide residue samples should be collected, stored, and transported using EPA approved methods and chain of custody procedures. Soil and ground water sample collection procedures for agricultural chemical contamination can be found in [GD11 - Soil Sampling Guidance](#) and [GD12 - Ground Water Sampling Guidance](#).

These lists will be reviewed and updated periodically: See MDA [GD24 - Fixed Base Laboratory Quality Assurance/Quality Control Plans](#) for specific laboratory reporting limits for soil and water for each compound.

MDA List 1 Pesticides	Soils RL (mg/Kg)	Water RL (µg/L)
Acetochlor (Surpass)	0.05	0.5
Alachlor (Lasso)	0.05	0.5
Atrazine (Aatrex)	0.04	0.5
Bifenthrin (Capture LFR)	0.05	0.5
Chlorpyrifos (Lorsban)	0.05	0.5
Cyanazine (Bladex)	0.09	0.2
Deethylatrazine	0.05	0.5
Deisopropylatrazine	0.05	0.5
Dimethenamid (Frontier)	0.05	0.5
EPTC (Eradicane)	0.05	0.5
Ethalfuralin (Sonalan)	0.05	0.5
Fonofos (Dyfonate)	0.03	0.5
Lambda-cyhalothrin (Lamcap II)	0.08	0.1
Metolachlor (Dual)	0.05	0.5
Metribuzin (Sencore)	0.05	0.5
Pendimethalin (Prowl)	0.05	0.5
Phorate (Thimet)	0.05	0.3
Prometon (Pramitol)	0.05	0.5
Propachlor (Ramrod)	0.03	0.5
Propazine (Milogard)	0.05	0.5

MDA List 1 Pesticides cont.	Soils RL (mg/Kg)	Water RL (µg/L)
Simazine (Princep)	0.05	0.5
Triallate (Far-go)	0.05	0.5
Trifluralin (Treflan)	0.05	0.5
MDA List 2 Pesticides	Soils RL (mg/Kg)	Water RL (µg/L)
2,4,5-T	0.05	0.5
2,4,5-TP (Silvex)	0.1	0.5
2,4-D (Enlist One)	0.1	0.5
2,4-DB (Agrisolutions 2,4-DB 200)	0.05	0.5
Bentazon (Basagran)	0.1	0.5
Clopyralid (Stinger)	0.09	0.5
Dicamba (Diflexx)	0.1	0.5
MCPA	0.05	0.3
Picloram (Tordon 22K)	0.05	0.5
Triclopyr (Garlon 4 Ultra)	0.1	0.5
MDA List 3 Pesticides	Soils RL (mg/Kg)	Water RL (µg/L)
AMPA	0.1	1
Glyphosate (Round up)	0.1	1

MDA List 4 Pesticides	Soils RL (mg/Kg)	Water RL (µg/L)
Flumetsulam (Accolade)	0.02	0.5
Fomesafen (Flexstar)	0.05	0.5
Imazethapyr (Pursuit)	0.02	0.5
Mesotrione (Callisto)	0.03	0.5
Sulfentrazone (Authority)	0.05	0.5
Tembotrione (Laudis)	0.005	0.5

Nutrients	Soils RL (mg/Kg)	Water RL (mg/L)
Nitrate + Nitrite – N	NA	1.0
Nitrate – N	10	NA
Total Kjeldahl Nitrogen	150	1.0

NA = Not Applicable
mg/Kg = milligrams per kilogram
ug/L = micrograms per liter