



# IOWA DEPARTMENT OF NATURAL RESOURCES

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LEADING IOWANS IN CARING FOR OUR NATURAL RESOURCES

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# Special Waste Authorizations (SWA's)

567 IAC 109

## Provides safe, proper, disposal management:

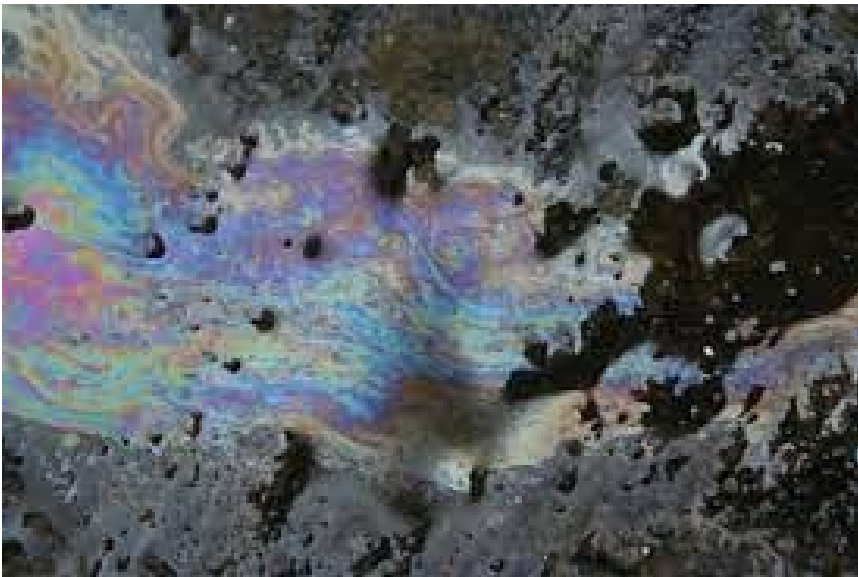
- Threat to human health
- Threat to environment
- Difficult to manage
  - Unmanageable or unsafe quantity
  - Packaging concerns
  - Waste mixture concerns
  - Unfamiliar waste for landfill/generator
  - Possible HW concerns



# General Special Wastes 567—109.11(455B,455D)

## Common wastes accepted at landfills

- ❖ 109.11(1) Asbestos-Containing Material
- ❖ 109.11(2) Petroleum Contaminated Soil – PCS
- ❖ 109.11(3) Grit & Bar Screenings



- ✓ No SWA issued for these wastes
- ✓ Conditional acceptance - Requires special handling
- ✓ Landfills must have Special Waste Acceptance Criteria (SWACs) for these wastes (109.3)

# Who initiates SWA's?

## ➤ The Department

- Unique/Unfamiliar waste issues such as Biodiesel waste, Bakken Oil waste

## ➤ The Landfill

- Assistance with analytics
- Can they accept it?
- Quantity, concentration, physical or chemical or biological characteristics.
- Special handling  
(trained people, special disposal methods)

## ➤ Waste generator

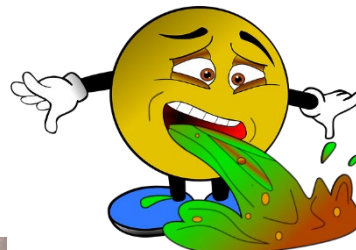
- Familiar with their waste



# Why the Concern?



Worker safety: Can toxic wastes sneak in?



# SWA denied for 3 reasons:



It is not a special waste, no special handling is required.



It is hazardous and cannot be landfilled (Subtitle D MSW landfill) in Iowa.



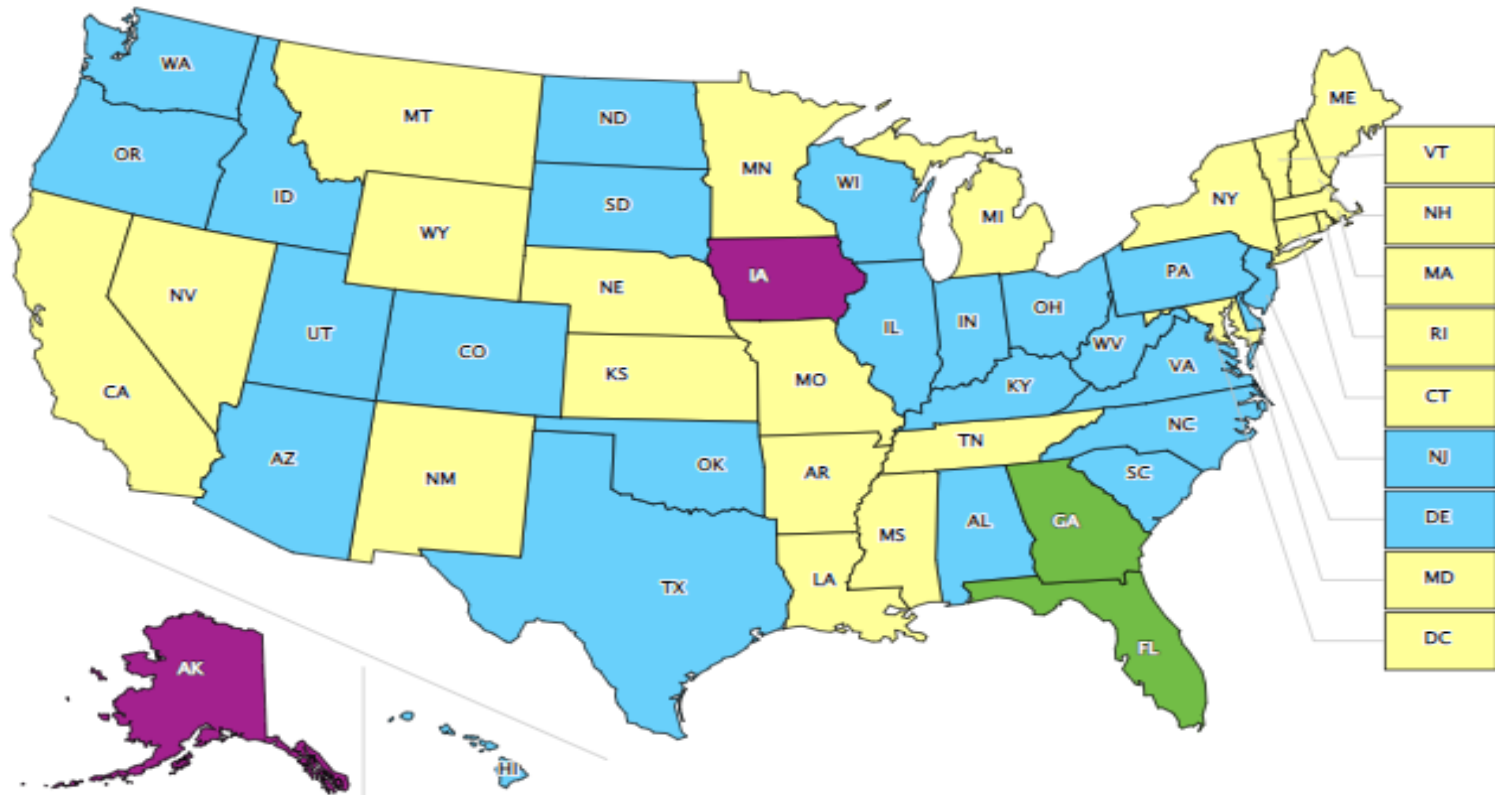
A reuse has been found!

# Examples of (Federal) rule updates

- CRT Rule (2006)
- Solvent Wipes Rule (2013)
- Hazardous Waste Generator Improvements Rule (5/2017)
- Airbag rule (2018)
- Electronic manifest (6/2019)
- Pharmaceutical Rule (8/2019)
- Aerosol Can rule (2/2020)
- Retail Strategy (collective)
- Definition of Solid waste (5/2018)







# Pharmaceutical rule

Iowa - 2019

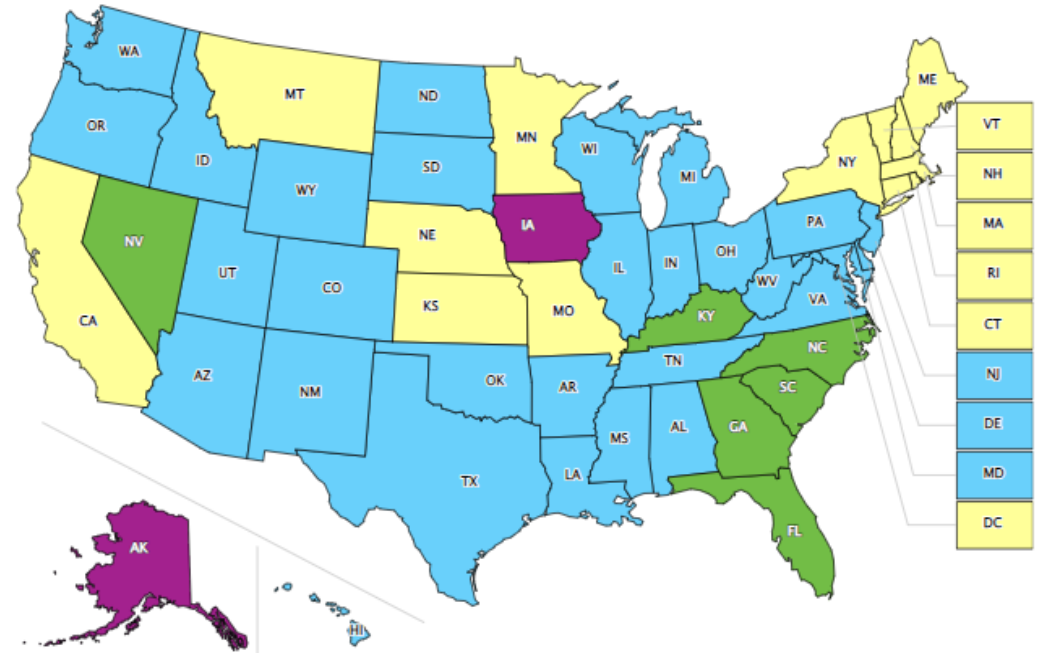
American Samoa
Guam
Northern Mariana Islands
Puerto Rico
Virgin Islands

- Authorized
- Adopted
- Administered by EPA Region
- Neither Adopted nor Authorized

Last updated on February 2, 2022

# Hazardous Waste Generator Improvements Rule

- Includes over 60 changes to RCRA
- Reorganized the regulations
- Effective in Iowa (May 2017)



American Samoa
Guam
Northern Mariana Islands
Puerto Rico
Virgin Islands

- Authorized
- Adopted
- Administered by EPA Region
- Neither Adopted nor Authorized

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# Waste Determinations

§ 262.11(a) The hazardous waste determination for each solid waste must be made

- at the point of waste generation,
- before any dilution, mixing, or other alteration of the waste occurs,
- and at any time in the course of its management that it has, or may have, changed its properties as a result of exposure to the environment or other factors that may change the properties of the waste such that the RCRA classification of the waste may change.

# Episodic Generation 40 CFR 262.231

Allows VSQGs and SQGs to retain those statuses when an *episodic event* within a calendar year temporarily results in the generation of an amount of hazardous waste that exceeds the monthly limits for those categories.

The episodic event may be either **planned** or **unplanned**, but in either case, the rule requires that the generator meet specific conditions if it wants to retain its status. In addition, the generator may petition the EPA to retain its status if a second episodic event occurs in the same calendar year.

Event type	Immediately contact HWTR regional office	Forms required	Forms due
Unplanned	Within 72 hours	<ul style="list-style-type: none"><li>• Episodic Addendum</li><li>• Pre-printed Site ID</li></ul>	Within 30 days after
Planned	n/a	<ul style="list-style-type: none"><li>• Episodic Addendum</li><li>• Pre-printed Site ID</li></ul>	30 days in advance (60 days recommended)

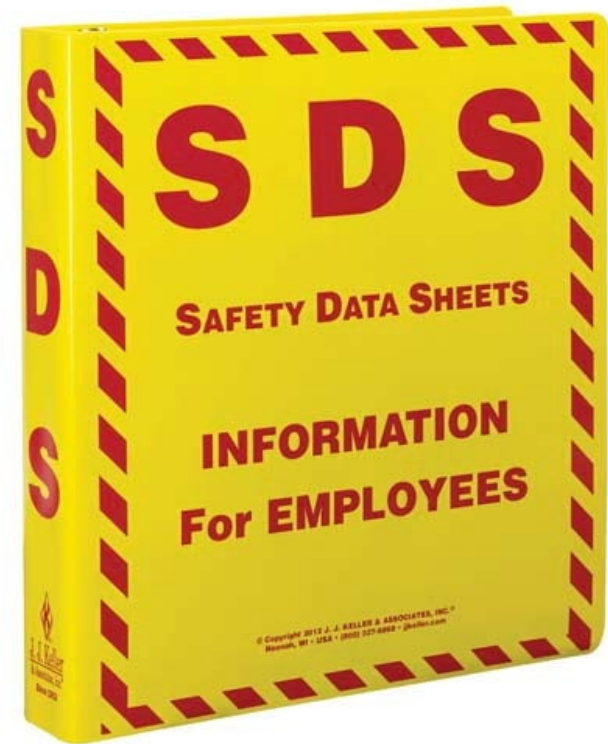
# Reviewing MSDS's (now SDS)

MSDS's are not required to list any carcinogenic components under .1% and non-carcinogenic components under 1%.

**Do the math:**

.1% = 1,000 ppm

1% = 10,000 ppm



# SDS Example



Version 1.0

Revision Date 18.02.2020

Odour: No data available

Odour Threshold: No data available

pH: No data available

Melting point/range: No data available

Boiling point/boiling range: No data available

Flash point: No data available

Evaporation rate: No data available

Burning rate: No data available

Upper explosion limit: No data available

Lower explosion limit: No data available

Vapour pressure: No data available

Relative vapour density: No data available

Relative density: No data available

Density: No data available

Solubility(ies)

Water solubility: No data available

Solubility in other solvents: No data available

Partition coefficient: n- octanol/water: No data available

Auto-ignition temperature: No data available

Decomposition temperature: No data available

Viscosity

Viscosity, dynamic: No data available

Viscosity, kinematic: No data available

Explosive properties: No data available

Oxidizing properties: No data available

**Other information**

No data available

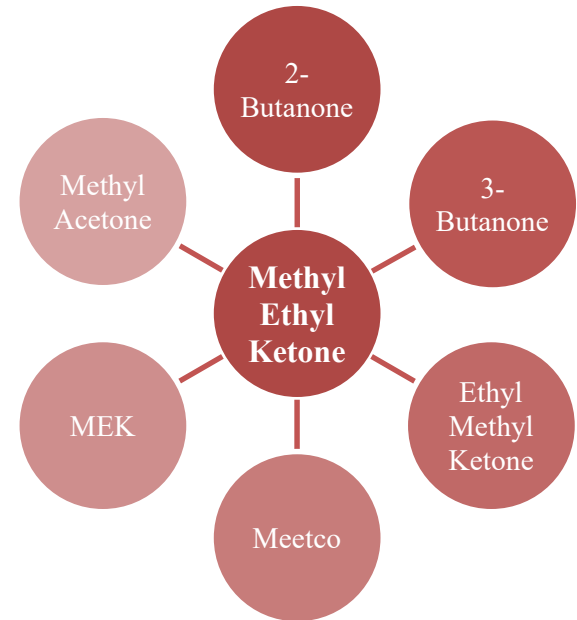
## 13. DISPOSAL CONSIDERATIONS

Disposal should be in accordance with applicable regional, national and local laws and regulations.

# How it was generated may dictate regulations for disposal

## It may pass TCLP, yet still be a hazardous waste

TCLP Metals and Volatile Organic Compounds, Pesticides, Semi-Volatile Organic Compounds and Herbicides					
Metals			Volatile Organic Compounds		
Contaminant	EPA HW #	Regulatory Level	Contaminant	EPA HW #	Regulatory Level
Arsenic	D004	5.0 mg/L	Benzene	D018	0.5 mg/L
Barium	D005	100.0 mg/L	Carbon tetrachloride	D019	0.5 mg/L
Cadmium	D006	1.0 mg/L	Chlorobenzene	D021	100.0 mg/L
Chromium	D007	5.0 mg/L	Chloroform	D022	6.0 mg/L
Lead	D008	5.0 mg/L	1,2-Dichloroethane	D028	0.5 mg/L
Mercury	D009	0.2 mg/L	1,1-Dichloroethylene	D029	0.7 mg/L
Selenium	D010	1.0 mg/L	Methyl ethyl ketone	D035	200.0 mg/L
Silver	D011	5.0 mg/L	Tetrachloroethylene	D039	0.7 mg/L
			Trichloroethylene	D040	0.5 mg/L
			Vinyl chloride	D043	0.2 mg/L
Pesticides			Semi-Volatile Organic Compounds		
Contaminant	EPA HW #	Regulatory Level	Contaminant	EPA HW #	Regulatory Level
Chlordane	D020	0.03 mg/L	o-Cresol	D023	200.0 mg/L
Endrin	D012	0.02 mg/L	m-Cresol	D024	200.0 mg/L
Heptachlor (and its epoxide)	D031	0.008 mg/L	p-Cresol	D025	200.0 mg/L
Lindane	D013	0.4 mg/L	Cresol	D026	200.0 mg/L
Methoxychlor	D014	10.0 mg/L	1,4-Dichlorobenzene	D027	7.5 mg/L
Toxaphene	D015	0.5 mg/L	2,4-Dinitrotoluene	D030	0.13 mg/L
			Hexachlorobenzene	D032	0.13 mg/L
			Hexachlorobutadiene	D033	0.5 mg/L
			Hexachloroethane	D034	3.0 mg/L
			Nitrobenzene	D036	2.0 mg/L
Herbicides			Pentachlorophenol	D037	100.0 mg/L
Contaminant	EPA HW #	Regulatory Level	Pyridine	D038	5.0 mg/L
2,4-D	D016	10.0 mg/L	2,4,5-Trichlorophenol	D041	400.0 mg/L
2,4,5-TP (Silvex)	D017	1.0 mg/L	2,4,6-Trichlorophenol	D042	2.0 mg/L



## RCRA Hazardous Waste Codes

- D035 – Ingredient in paint, unknown etc.
- F005 – Used for solvent purposes (cleaning spray gun)
- U159 – Pure chemical product

	Universal Waste		HW Generator Requirements		
	SQHUU	LQHUU	VSQG	SQG	LQG
Quantity handled by Category	Accumulate < 5,000kg (11,000 lb) onsite at any one time	Accumulate 5,000 kg (11,000 lb) or more on site at any one time	Generate <100 kg (200 lb) per month, < 1kg acute per month, <1kg per month of acute spill residue or soil	Generate >100 and <1,000kg (2,200 lb) per month	Generate > 1,000 kg /mo,, > 1kg acute/mo or > 100 kg /mo of acute spill residue or soil
EPA ID number	Not Required	Required	Not Required	Required	Required
On-site Accumulation	< 5,000 kg	No quantity Limit	<1,000kg, <1kg acute, <100 kg acute spill residue or soil	< 6,000 kg	No Quantity Limit
Storage Time Limit	1 year (unless for proper recovery, treatment or disposal)	1 year (unless for proper recovery, treatment or disposal).	None	< 180 days or < 270 days if transporting greater than 200 miles	< 90 days
Manifest	Not Required	Not Required Must keep basic shipping records	Not Required	Required	Required
Personnel Training	Basic Training	Basic Training geared toward employee responsibilities	Not Required	Basic Training Required	Required



# What do I look for when reviewing an SWA?

- Did the waste generator make an accurate waste determination?
- Can the waste be reused?
- Did they mix several or similar waste streams?
- Did they run the correct testing and the correct methods?
- Look up chemical names and CAS numbers
- Listed waste, 'derived from' waste, 'contained in' waste,
- Was there any treatment and do LDR's apply,
- Sampling – did they do enough sampling, grab or composite
- Did they do Totals mg/kg or TCLP mg/L,
- Results in ppm or ppb?
- If using totals, is sample near 100% solid?
- Did the waste originate in the planning area of generation?
- Did they use a Iowa Certified lab?
- How old is the lab data?
- Did they use an SDS?
- Is it from the correct facility?
- Can I provide them with waste assistance?
- Does the landfill have a SWAC (Special Waste Acceptance Criteria)
- Pass the Paint filter test?
- Weight or Volume of waste, one time or ongoing
- How will it be delivered to landfill, bags, barrels, loose, etc.
- Is it OSHA hazardous? Worker precaution
- If waste was from a spill, are there RQ's and did they report it?

# TCLP Reference Chart

## TCLP Metals and Volatile Organic Compounds, Pesticides, Semi-Volatile Organic Compounds and Herbicides

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# Resources to Assist Iowa Waste Generators

- Iowa Waste Exchange - IWE
- Iowa Waste Reduction Center - IWRC
- Pollution Prevention Program –DNR
- Special Waste Program - DNR
- Iowa DNR field offices
- EPA Region 7
- Regional Collection Centers for Household Hazardous Waste

