CROWE & DUNLEVY
ATTORNEYS AND COUNSELORS AT LAW

You've Got 99 Problems but the Safety Data Sheets Aren't One:

Using SDSs and OSHA's Hazardous Communication Standards to Protect Employees and Mitigate Environmental Risks

Presented by: Tim Sowecke

Presenter: Tim Sowecke

- Tim Sowecke, Attorney, Crowe & Dunlevy
- Environmental and Energy litigation and regulatory compliance
- *Subsequent information should not be understood as, or considered a substitute for, specific legal advice. For inquiries, please contact Tim Sowecke, or another licensed attorney.

Roadmap (What is this all for?)

- **Thesis/purpose: Use of Safety Data Sheets ("SDS") as an efficient way to evaluate scope of chemicals handled and manage worker safety and environmental risks/compliance.**

1) Haz-what? A closer look at OSHA/EPA Haz Communication Standards.

2) Check your sheets. A closer look at Safety Data Sheets.

3) HazComm and SDS to manage safety and assess other environmental risks.

The star of this presentation is the Safety Data Sheet (“SDS”)

SIGMA-ALDRICH

sigma-aldrich.com

Material Safety Data Sheet

Version 4.1
Revision Date 10/23/2010
Print Date 02/08/2011

1. PRODUCT AND COMPANY IDENTIFICATION

Product name	:	Chromium(III) acetate hydroxide
Product Number	:	318108
Brand	:	Aldrich
Product Use	:	For laboratory research purposes.
Supplier	:	Sigma-Aldrich Canada, Ltd 2149 Winston Park Drive OAKVILLE ON L6H 6J8 CANADA
Manufacturer	:	Sigma-Aldrich Corporation 3050 Spruce St. St. Louis, Missouri 63103 USA
Telephone	:	+19058299500
Fax	:	+19058299292
Emergency Phone # (For both supplier and manufacturer)	:	1-800-424-9300
Preparation Information	:	Sigma-Aldrich Corporation Product Safety - Americas Region 1-800-521-8956

2. HAZARDS IDENTIFICATION

Emergency Overview

WHMIS Classification

Not WHMIS controlled.

Not WHMIS controlled.

GHS Classification

Acute toxicity, Inhalation (Category 4)
Acute toxicity, Dermal (Category 4)
Acute toxicity, Oral (Category 4)
Skin irritation (Category 2)
Eye irritation (Category 2A)
Specific target organ toxicity - single exposure (Category 3)

GHS Label elements, including precautionary statements

Pictogram

- **Occupational Safety and Health Administration ("OSHA"), Hazard Communication Standards ("HCS"), 29 C.F.R. § 1910.1200 et seq. (collectively, the "HCS").**

1. The HCS requires that (1) chemical manufacturers and importers, distributors and employers, to classify the hazards of chemicals which they produce or import, and all (2) manufacturers, distributors and employers, to provide information to downstream users and employees regarding "the hazardous chemicals to which they are exposed by means of a hazard communication program, labels and other forms of warning, safety data sheets, and information and training. 29 C.F.R. § 1910.1200(a) and (b)(1).

2. This requirement exists "where any chemical is known to be present in the workplace in such a manner that employees may be exposed under normal conditions of use or in a foreseeable emergency." 29 C.F.R. § 1910.1200(b)(2).

3. "Foreseeable emergency" means "any potential occurrence such as, but not limited to, equipment failure, rupture of containers, or failure of control equipment which could result in an uncontrolled release of a hazardous chemical into the workplace." 29 C.F.R. § 1910.1200(b)(2).

    1. Need only be "possible" – doesn't not require "probability." *Mansfield Indus., Inc.*, CCH OSHD ¶ 33695 (No. 17-0594, 2018) ("[OSHA] is not required to prove that such an emergency is probable; rather, [OSHA] need only show such an equipment failure is possible.")

4. Therefore, manufacturers and users/employers develop a hazard communication program that includes:

    1. Written communication documents (and training);

    2. SDS management;

    3. Cross-reference information with other regulatory compliance obligations, RCRA, TRI reporting, etc.

Disclaimer: Determinations of whether a substance is hazardous under HCS are technical in nature and require detailed analysis and consulting by a qualified attorney and/or qualified chemist or related professional, e.g., toxicologist.

Nevertheless, Safety Data Sheets are the **keystone** to maintaining compliance with HCS and further managing employee and environmental risks.

Safety Data Sheets

- **Chemical manufacturer, distributor, or importer must provide SDS for each hazardous chemical to downstream users and available to employees to communicate hazard information**.
- **16-section format. Appendix D of 29 CFR 1910.1200.**
- **Sections 1 through 8**
  - General information about the chemical, identification, hazards, composition, safe handling practices, emergency control measures.
- **Sections 9 through 11 and 16**
  - Technical and scientific information, such as physical and chemical properties, stability and reactivity, toxicology, exposure control.
- **Sections 12 and 15**
  - To be consistent with the UN Globally Harmonized System of Classification and Labeling of Chemicals (GHS)

Section 1 (General Information About the Chemical)

- Section 1: Product identifier, other means of identification such as CAS; recommended use/applications, contact information. 29 C.F.R. § 1910.1200(g)(2)(i); *see also* 29 C.F.R. § 1910.1200 Table D. 1, App. D.

Agilent

Page 1/9

Safety Data Sheet
acc. to OSHA HCS

Printing date 03/23/2019 Version Number 2 Reviewed on 03/23/2019

* **1 Identification**

· **Product identifier**

· **Trade name: Perfluorooctanoic Acid (PFOA)**

· **Part number:** N-1588
· **CAS Number:**
335-67-1
· **EC number:**
206-397-9
· **Index number:**
607-704-00-2
· **Application of the substance / the mixture** Reagents and Standards for Analytical Chemical Laboratory Use

· **Details of the supplier of the safety data sheet**
· **Manufacturer/Supplier:**
Agilent Technologies, Inc.
5301 Stevens Creek Blvd.
Santa Clara, CA 95051 USA

· **Information department:**
Telephone: 800-227-9770
e-mail: pdl-msds_author@agilent.com
· **Emergency telephone number:** CHEMTREC®: 1-800-424-9300

Section 2: Hazard(s) identification (e.g., pictograms, precautionary statements)

- Section 2: Hazard classification of chemical, e.g., hazard class and category (following Appendices A and B to 29 C.F.R. § 1910.1200); signal words, hazard statement, precautionary statement. 29 C.F.R. § 1910.1200(g)(2)(ii); *see also* 29 C.F.R. § 1910.1200 Table D. 1, App. D.

  "Hazard class" means "the nature of the physical or health hazards, e.g., flammable solid, carninogen, oral acute toxicity." 29 C.F.R. § 1910.1200(c).

  "Hazard category" means "the division of crietria within a hazard class, e.g., oral acute toxicity and flammable liquids include four hazard categories. These categories compare hazard sevierity within a hazard class…." 29 C.F.R. § 1910.1200(c).

- "Chemical manufacturers, importers or employers . . . shall identify and consider the full range of available scientific literature and other evidence concerning the potential hazards." 29 C.F.R. § 1910.1200(d)(2).

- "There is no requirement to test the chemical to determine how to classify its hazards." 29 C.F.R. § 1910.1200(d)(2).

* **2 Hazard(s) identification**

· **Classification of the substance or mixture**

GHS08 Health hazard

Carc. 2	H351	Suspected of causing cancer.
Repr. 1B	H360	May damage fertility or the unborn child.
STOT RE 1	H372	Causes damage to the liver through prolonged or repeated exposure.

Section 2: Hazard(s) identification (continued)

* **2 Hazard(s) identification**

· **Classification of the substance or mixture**

GHS08 Health hazard

Carc. 2	H351	Suspected of causing cancer.
Repr. 1B	H360	May damage fertility or the unborn child.
STOT RE 1	H372	Causes damage to the liver through prolonged or repeated exposure.

GHS05 Corrosion

Eye Dam. 1	H318	Causes serious eye damage.

GHS07

Acute Tox. 4	H302	Harmful if swallowed.
Acute Tox. 4	H332	Harmful if inhaled.

· **Label elements**

· **GHS label elements** The substance is classified and labeled according to the Globally Harmonized System (GHS).

(Contd. on page 2)

* "GHS" means Globally Harmonized System

Section 2: Hazard(s) identification (continued)

(Contd. of page 1)

· **Hazard pictograms**

GHS05 GHS07 GHS08

· **Signal word** Danger

· **Hazard-determining components of labeling:**
perfluorooctanoic acid (PFOA)

· **Hazard statements**
Harmful if swallowed or if inhaled.
Causes serious eye damage.
Suspected of causing cancer.
May damage fertility or the unborn child.
Causes damage to the liver through prolonged or repeated exposure.

· **Precautionary statements**
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Do not breathe dust/fume/gas/mist/vapors/spray.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/protective clothing/eye protection/face protection.
If swallowed: Call a poison center/doctor if you feel unwell.
Rinse mouth.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.

- **Section 3: Composition/information on ingredients**
  - For "substances" ("chemical elements and their compounds in the natural state or obtained by any production process, including any additive necessary to preserve stability of the produce and any impurities deriving from the process used….") 29 C.F.R. § 1910.1200(c); *see also* 29 C.F.R. § 1910.1200(g)(2)(iii); 29 C.F.R. § 1910.1200 Table D. 1, App. D.
    - Chemical name;
    - Common name and synonym;
    - CAS number and other unique identifiers
    - Impurities and stabilizing additives which are themselves classified and contribute to classification of the substance
  - For "mixtures" (means "combination or a solution composed of two or more substances in which they do not react"). ….") 29 C.F.R. § 1910.1200(c).
    - Same as "substances."
    - Concentration (exact percentage) unless trade secret claim is made.

3 Composition/information on ingredients

· **Chemical characterization: Substances**
· **CAS No. Description**
335-67-1 perfluorooctanoic acid (PFOA)
· **Identification number(s)**
· **EC number:** 206-397-9
· **Index number:** 607-704-00-2

- **Section 4: First-aid measures**
  - Description of necessary measures, subdivided by different routes of exposure, e.g., inhalation, skin and eye contact, ingestion. 29 C.F.R. § 1910.1200(g)(2)(iv); *see also* 29 C.F.R. § 1910.1200 Table D. 1, App. D
  - Symptoms/Effects
  - Indication of immediate medical attention and special treatment needed.

4 First-aid measures

· **Description of first aid measures**
· **General information:**
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
· **After inhalation:**
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist. In case of unconsciousness place patient stably in side position for transportation.
· **After skin contact:** Generally the product does not irritate the skin.
· **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
· **After swallowing:** Immediately call a doctor.
· **Information for doctor:**
· **Most important symptoms and effects, both acute and delayed** No further relevant information available.
· **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

- **Section 5: Fire-fighting measures**
  - Suitable (and unsuitable) extinguishing media. 29 C.F.R. § 1910.1200(g)(2)(v); *see also* 29 C.F.R. § 1910.1200 Table D. 1, App. D.
  - Specific hazards arising from the chemical (e.g., nature of any hazardous combustion products).
  - Special protective equipment and precautions for fire-fighters.

4 First-aid measures

· **Description of first aid measures**
· **General information:**
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
· **After inhalation:**
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist. In case of unconsciousness place patient stably in side position for transportation.
· **After skin contact:** Generally the product does not irritate the skin.
· **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
· **After swallowing:** Immediately call a doctor.
· **Information for doctor:**
· **Most important symptoms and effects, both acute and delayed** No further relevant information available.
· **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

- **Section 6: Accidental release measures**
  - Personal Precautions, protective equipment, and emergency procedures. 29 C.F.R. § 1910.1200(g)(2)(vi); *see also* 29 C.F.R. § 1910.1200 Table D. 1, App. D.
  - Methods and materials for containment and cleaning up.

6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**
Mount respiratory protective device.
Wear protective equipment. Keep unprotected persons away.
· **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
· **Methods and material for containment and cleaning up:**
Use neutralizing agent.
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.

(Contd. on page 4)

US

- **Section 7: Handling and Storage**
  - Precautions for safe handling. 29 C.F.R. § 1910.1200(g)(2)(vii); *see also* 29 C.F.R. § 1910.1200 Table D. 1, App. D.
  - Conditions for safe storage, including any incompatibilities.

7 Handling and storage

· **Handling:**
· **Precautions for safe handling**
Thorough dedusting.
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
· **Information about protection against explosions and fires:** Keep respiratory protective device available.

· **Conditions for safe storage, including any incompatibilities**
· **Storage:**
· **Requirements to be met by storerooms and receptacles:** No special requirements.
· **Information about storage in one common storage facility:** Not required.
· **Further information about storage conditions:** Keep receptacle tightly sealed.
· **Specific end use(s)** No further relevant information available.

- **Section 8: Exposure controls/personal protection**
  - OSHA permissible exposure limit ("PEL"), Threshold Limit Value ("TLV"), and other exposure limits used or recommended by preparer of SDS. 29 C.F.R. § 1910.1200(g)(2)(viii); *see also* 29 C.F.R. § 1910.1200 Table D. 1, App. D.
  - Appropriate engineering controls.
  - Individual protection measures, such as PPE.

* **8 Exposure controls/personal protection**

· **Additional information about design of technical systems:** No further data; see item 7.

· **Control parameters**
· **Components with limit values that require monitoring at the workplace:** Not required.
· **Additional information:** The lists that were valid during the creation were used as basis.

· **Exposure controls**
· **Personal protective equipment:**
· **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Store protective clothing separately.
Avoid contact with the eyes.
Avoid contact with the eyes and skin.
· **Breathing equipment:**
When used as intended with Agilent instruments, the use of the product under normal laboratory conditions and with standard practices does not result in significant airborne exposures and therefore respiratory protection is not needed.
Under an emergency condition where a respirator is deemed necessary, use a NIOSH or equivalent approved device/equipment with appropriate organic or acid gas cartridge.

(Contd. on page 5)

- **Section 9: Physical and chemical properties**
  - Appearance; odor, pH; melting/freezing point; initial boiling and boiling range; flash point; evaporation rate; flammability; vapor pressure; vapor density; relative density; solubility; decomposition temperature; viscosity. 29 C.F.R. § 1910.1200(g)(2)(ix); *see also* 29 C.F.R. § 1910.1200 Table D. 1, App. D.

9 Physical and chemical properties

· **Information on basic physical and chemical properties**	
· **General Information**	
· **Appearance:**	
Form:	Solid
Color:	Not determined.
· **Odor:**	Characteristic
· **Odor threshold:**	Not determined.
· **pH-value:**	Not applicable.
· **Change in condition**	
Melting point/Melting range:	55-56 °C (131-132.8 °F)
Boiling point/Boiling range:	190 °C (374 °F)
· **Flash point:**	Not applicable.
· **Flammability (solid, gaseous):**	Product is not flammable.
· **Decomposition temperature:**	Not determined.
· **Auto igniting:**	Not determined.
· **Danger of explosion:**	Product does not present an explosion hazard.
· **Explosion limits:**	
Lower:	Not determined.
Upper:	Not determined.
· **Vapor pressure at 20 °C (68 °F):**	0.69 hPa (0.5 mm Hg)
· **Density at 20 °C (68 °F):**	0.9 g/cm³ (7.5105 lbs/gal)
· **Relative density**	Not determined.
· **Vapor density**	Not applicable.

(Contd. on page 6)

- **Section 10: Stability and reactivity**
  - Reactivity; chemical stability; possibility of hazardous reactions; conditions to avoid (e.g., static discharge, shock, vibration); incompatible materials, hazardous decomposition products. 29 C.F.R. § 1910.1200(g)(2)(x); *see also* 29 C.F.R. § 1910.1200 Table D. 1, App. D.

10 Stability and reactivity

· **Reactivity** No further relevant information available.
· **Chemical stability**
· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
· **Possibility of hazardous reactions** No dangerous reactions known.
· **Conditions to avoid** No further relevant information available.
· **Incompatible materials:** No further relevant information available.
· **Hazardous decomposition products:** No dangerous decomposition products known.

*** Lithium-ion battery.**

SECTION X - STABILITY AND REACTIVITY

10.1 Stability and Reactivity:
Stability- The battery packs manufactured by Inspired Energy are completely stable under normal use and in normal storage conditions.
Reactivity- The internal cells within the battery packs may become unstable due to abusive conditions.
Conditions to Avoid- Avoid shorting the battery. Do not immerse in water. Do not disassemble or deform the battery. Do not expose to, or dispose of the battery in fire. Avoid excessive physical shock or vibration. Keep out of the reach of children. Battery must be charged in approved charger. Never use a modified or damaged charger. For specified product use only. Store in a cool, dry and well-ventilated area. Never use a battery that has suffered abuse. Refer to data sheet for safe operating instructions.
Incompatible Materials- Do not immerse in water or any other high corrosive conductive liquid.
Hazardous, Decomposition Products- Internal cells may decompose to hydrogen fluoride, phosphorous oxides, sulfur oxides, sulfuric acid, lithium hydroxide, carbon monoxide and carbon dioxide.

- **Section 11: Toxicological information**
  - Description of various toxicological (i.e., health) effects and the available data used to identify those effects. 29 C.F.R. § 1910.1200(g)(2)(xi); *see also* 29 C.F.R. § 1910.1200 Table D. 1, App. D.
    - Exposure route.
    - Symptoms;
    - Delayed and immediate effects and also chronic effects from short- and long-terms exposures;
    - Numerical measures of toxicity;
    - Whether the chemical is listed in the National Toxicology Program Report on Carcinogenic (latest edition).

11 Toxicological information

· **Information on toxicological effects**
· **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**

ATE (Acute Toxicity Estimate)

Oral	LD50	500 mg/kg
Inhalative	LC50/4 h	1.5 mg/L

· **Primary irritant effect:**
· **on the skin:** No irritant effect.
· **on the eye:** Strong irritant with the danger of severe eye injury.
· **Sensitization:** No sensitizing effects known.
· **Additional toxicological information:**

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**

2B

· **NTP (National Toxicology Program)**

Substance is not listed.

(Contd. on page 7)

- **Section 12: Ecological information (non-mandatory)**
  - *See* 29 C.F.R. § 1910.1200(g)(2)(xii); *also* 29 C.F.R. § 1910.1200 Table D. 1, App. D. Ecotoxicity (aquatic and terrestrial, where available).
    - Persistence and degradability;
    - Bioaccumulative potential;
    - Mobility in soil;
    - Other adverse effects (e.g., hazardous to ozone layer)

12 Ecological information

· **Toxicity**
· **Aquatic toxicity:** No further relevant information available.
· **Persistence and degradability** No further relevant information available.
· **Behavior in environmental systems:**
· **Bioaccumulative potential** No further relevant information available.
· **Mobility in soil** No further relevant information available.
· **Additional ecological information:**
· **General notes:**
Water hazard class 2 (Assessment by list): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Must not reach bodies of water or drainage ditch undiluted or unneutralized.
Danger to drinking water if even small quantities leak into the ground.
· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.
· **Other adverse effects** No further relevant information available.

- **Section 13: Disposal considerations (non-mandatory)**
  - Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging. 29 C.F.R. § 1910.1200(g)(2)(xiii); *see also* 29 C.F.R. § 1910.1200 Table D. 1, App. D. :
    - Other adverse effects (e.g., hazardous to ozone layer)

13 Disposal considerations

· **Waste treatment methods**
· **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

· **Uncleaned packagings:**
· **Recommendation:** Disposal must be made according to official regulations.

*** Lithium-ion battery (below).**

13.1 Waste Treatment Methods: Recycling of Inspired Energy's Smart Battery Packs is strongly encouraged. Every battery has instructions for contacting the Rechargeable Battery Recycling Corp (RBRC) to ensure the appropriate recycling method within the USA. Every battery has the appropriate symbols to direct appropriate disposal in Europe. The battery packs internal cell's contents should not be released into the environment, do not dump into any sewers, on the ground or into any body of water. Do not dispose of battery packs in fire. Used battery packs should be stored in their original packaging. Ensure packs are stored in a manner to prevent short circuit of the cells. Battery pack should be fully discharged before recycling. Do break battery pack open before disposal.

- **Section 14: Transport information (non-mandatory)**
  - *See* 29 C.F.R. § 1910.1200(g)(2)(xiv); *also* 29 C.F.R. § 1910.1200 Table D. 1, App. D.
    - UN Number;
    - UN proper shipping name;
    - Transport hazard class(es);
    - Environmental hazards (e.g., Marine Pollutant)
    - Special precaution which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises.

14 Transport information	
· **UN-Number**	
· **DOT, IMDG, IATA**	UN3261
· **UN proper shipping name**	
· **DOT**	Corrosive solid, acidic, organic, n.o.s. (perfluorooctanoic acid (PFOA))
· **IMDG, IATA**	CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S. (perfluorooctanoic acid (PFOA))

· **Transport hazard class(es)**	
· **IATA**	
	
· **Class**	8 Corrosive substances
· **Label**	8
· **Environmental hazards:**	Not applicable.
· **Special precautions for user**	Warning: Corrosive substances
· **Danger code (Kemler):**	80
· **EMS Number:**	F-A,S-B
· **Segregation groups**	Acids

- **Section 15: Regulatory information (non-mandatory)**
  - Safety, health and environmental regulations specific for the product in question. *See* 29 C.F.R. § 1910.1200(g)(2)(xv); *also* 29 C.F.R. § 1910.1200 Table D. 1, App. D.

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**
· **Sara**

· **Section 355 (extremely hazardous substances):**
Substance is not listed.

· **Section 313 (Specific toxic chemical listings):**
Substance is not listed.

· **TSCA (Toxic Substances Control Act):**
Substance is listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**
Substance is not listed.

· **Chemicals known to cause reproductive toxicity for females:**
Substance is not listed.

· **Chemicals known to cause reproductive toxicity for males:**
Substance is not listed.

· **Chemicals known to cause developmental toxicity:**
Substance is listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**
Substance is not listed.

· **TLV (Threshold Limit Value established by ACGIH)**
Substance is not listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**
Substance is not listed.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

- **Section 16: Other information**
  - Date of preparation and prepared by. *See* 29 C.F.R. § 1910.1200(g)(2)(xvi); *also* 29 C.F.R. § 1910.1200 Table D. 1, App. D.
  - Usually includes disclaimer/warranty language.
    - No warranty as to accurateness, completeness, suitability for particular purpose
  - May include key to various abbreviations and acronyms.

16 Other information

The information contained in this document is based on Agilent's state of knowledge at the time of preparation. No warranty as to its accurateness, completeness or suitability for a particular purpose is expressed or implied.

- **Date of preparation / last revision** 03/23/2019 / 1
- **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association

SECTION XVI - OTHER INFORMATION

Preparation Date: March 24, 2016
Prepared by: Inspired Energy's Compliance Department
Revision: V1- Initial Release
Disclaimer: The information contained within is provided for your information only. The information and recommendations set forth herein are made in good faith and are believed to be accurate as of the date of preparation. However, INSPIRED ENERGY, INC. MAKES NO WARRANTY, EITHER EXPRESSED OR IMPLIED, WITH RESPECT TO THIS INFORMATION AND DISCLAIMS ALL LIABILITY FROM RELIANCE ON IT.

Written Hazard Communication Program

- "Employers shall maintain safety data sheets that are received with incoming shipments of hazardous chemicals, … and ensure that the safety data sheets are readily accessible during each work shift to eomployees when they are in their work areas." 29 C.F.R. § 1910.1200(b)(4)(ii).

- "Employers shall ensure that employees are provided with information and training in accordance [with labels and safety data sheets]" and maintain a location and availability of the labels and safety data sheets and other documents constituting a "written hazard communication program." 29 C.F.R. § 1910.1200(h).

- "Chemical manufacturers or importers," or "Distributors shall ensure that material data sheets, and updated information, are provided to other distributors and employers with their initial shipment and with the first shipment after a safety data sheet is updated." 29 C.F.R. § 1910.1200(g)(6)(i) and (7)(i).

- **Updates:** "The chemical manufacturer, importer, or employer preparing the safety data sheet shall ensure that the information provided accurately reflects the scientific evidence used in making the hazard classification." [] "If the chemical manufacturer, importer or employer preparing the safety data sheet becomes newly aware of any significant information regarding the hazards of a chemical, or ways to protect agains the hazards, this new information shall be added to the safety data sheet **<u>within three months</u>**." 29 C.F.R. § 1910.1200(g)(5) (Emphasis added).

Takewayer: Managing your HCS program and in particular SDS management is an opportunity to maintain a safe work place.

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- "Employers shall ensure that employees are provided with information and training in accordance [with labels and safety data sheets]" and maintain a location and availability of the labels and safety data sheets and other documents constituting a "written hazard communication program." 29 C.F.R. § 1910.1200(h).

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Takeaway: Also an efficient way to assess and manage environmental risk?

- Evaluate scope of chemicals and whether such chemicals require certain reporting, disposal, other environmental compliance, and take necessary precautions:
  - Toxic Release Inventory reporting (“TRI reporting”).
  - Emergency Planning and Community Right to Know Act (“EPCRA”).
    - Emergency preparedness and response.
  - Resource Conservation and Recovery Act (“RCRA”).
    - Managing disposal/waste streams.
  - Comprehensive Environmental Response, Compensation, and Liability Act (“CERCLA” or “Superfund”).
  - Other environmental statutes and regulations, e.g., Safe Drinking Water Act, Clean Water Act, Clean Air Act.
  - And MORE!
    - Having a good pulse on your HCS (including all SDS) at facility is efficient way to assess environmental obligations for associated chemicals.

Questions?

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