

CERS NEXTGEN HAZARDOUS MATERIALS INVENTORY PREPARATION

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LEGAL DISCLAIMER

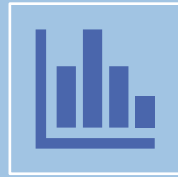
- This presentation is a summary of information but is not a substitute for reading, understanding, and complying with applicable regulations.
- Consult with your CUPA or CalEPA for specific guidance.



AGENDA



CERS NextGen
Update



Regulatory
Overview



NextGen
Business Rules



SDS Review



Questions

DATA DICTIONARY

California Code of
Regulations Title 27,
Division 3, Subdivision 1

**All applicable data
fields on CERS are
required to be
completed.**

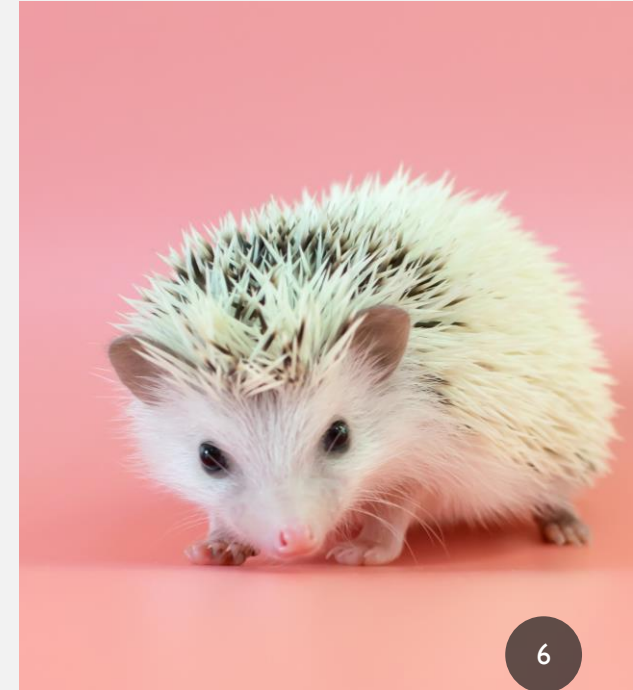




REGULATORY OVERVIEW

LEGAL DRIVERS OF INVENTORY CONTENT

- CALIFORNIA HEALTH AND SAFETY CODE, CHAPTER 6.95, SECTION 25508(A)(1)
- CALIFORNIA HEALTH AND SAFETY CODE, DIVISION 12, PART 2, CHAPTER 1 SECTIONS 13143-13143.9
- CALIFORNIA FIRE CODE, PART 9, CHAPTER 50, SECTIONS 5001.5.1-501.5
- CALIFORNIA CODE OF REGULATIONS ,TITLE 19, DIVISION 5, CHAPTER 1,
SECTIONS 5010.1 TO 5040.2
- 40 CODE OF FEDERAL REGULATIONS PART 370
- 29 CODE OF FEDERAL REGULATIONS 1910.1200
- CALIFORNIA BUILDING STANDARDS CODE TITLE 24
- LOCAL ORDINANCE



HAZARDOUS MATERIALS BUSINESS PLAN

The Hazardous Materials Business Plan (HMBP) aims to prevent or minimize harm to public health and safety and the environment from a release or threatened release of a hazardous material. This is accomplished by providing emergency responders with the necessary information to effectively protect the public.













FIRE CODE

California Fire Code has 17 Chapters about Hazardous Materials

Hazardous Materials Inventory Statements are the equivalent of Hazardous Materials Business Plans

Quantities stored and used determine safety requirements including exiting requirements, fire suppression equipment, and Occupancy classification.

		Ordinary Combustibles	Wood, Paper, Cloth, Etc.
		Flammable Liquids	Grease, Oil, Paint, Solvents
		Live Electrical Equipment	Electrical Panel, Motor, Wiring, Etc.
		Combustible Metal	Magnesium, Aluminum, Etc.
		Commercial Cooking Equipment	Cooking Oils, Animal Fats, Vegetable Oils

CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH ACT

- **Provide and maintain a safe and healthful workplace for employees.**
- **California's is aligned with federal regulation, and The United Nations' Globally Harmonized System (GHS) of Classification and Labeling of Chemicals.**
- **Require SDS on site**

SAFETY DATA SHEET

16 sections in document

Section 2: Hazard(s) Identification

- Federal Hazard Categories

Section 3: Composition

- Chemical Name
- Chemical % by Weight
- CAS #



HAZARDOUS MATERIALS INVENTORY

Reporting
Thresholds:

55 gal

200 cubic
feet

500 lbs



* Exemptions and local requirements remain applicable

CONSISTENCY

Chemical Names

**CURRENT DATA
QUALITY IS
INCONSISTENT AND
DOES NOT MEET
PROGRAM NEEDS**

Federal Hazard Categories

CAS NUMBERS

Hazardous Waste

Mixtures Components

205	207*	208*	209
ChemicalName	CommonName	EHS	CASNumber
DIESEL	DIESEL	Y	68334-30-5
Diesel Fuel No. 2	Diesel Fuel No. 2	N	68476-34-6
DIESEL	DIESEL	N	68334-30-5
Diesel Fuel	No. 2 Fuel Oil	N	68476-34-6
Petroleum Hydrocarbon	Red Diesel	Y	94114-55-3
Diesel	Diesel	Y	68334-30-5
Hydro Carbon	Diesel Fuel	Y	68476-34-6
ECD ULTRA LOW SULFUR DIESEL	ECD ULTRA LOW SULFUR DIESEL	N	
Diesel Fuel #2- Red	Diesel Fuel #2- Red	N	68476-34-6
Diesel Fuel Number 2	Diesel	Y	68476-34-6
Diesel Fuel	Diesel Fuel	N	68334-30-5
DIESEL=FUEL OIL	DIESEL=FUEL OIL	Y	

INCONSISTENT DATA EXAMPLE


- 29 different common names for Diesel
- >17 CAS numbers for mixtures
- Sometimes EHS

INCONSISTENT DATA EXAMPLE

- Common name and Chemical name
- No mixture components
- Missing CAS#

H	J	K	L	M	CE	CF	CG	CH	CI	CJ	CK	CL	CM	CN	CO	CP	CQ	CR	CS	CT	CU	
205	207*	208*	209	210a	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	
ChemicalName	CommonName	EHS	CASNumber	PFCode HazardCl	HC1Name	EH	HC1CAS	ByWeight	HC2Name	EH	HC2CAS	ByWeight	HC3Name	EH	HC3CAS	ByWeight	HC4Name	EH	HC4CAS	ByWeight	HC5Name	
DIESEL	DIESEL	Y	68334-30-5	9																		
Diesel Fuel No. 2	Diesel Fuel No. 2	N	68476-34-6	2	Diesel Fuel #2	Y	8006-61-9															
DIESEL	DIESEL	N	68334-30-5	2	FUELS, DIESEL, NO. 2	Y		0.01	GAS OIL, LIGHT	N	64741-44-2	0.01	HYDRODESU LFURIZED MIDDLE DISTILLATE	N	64742-80-9							
Diesel Fuel	No. 2 Fuel Oil	N	68476-34-6		Diesel Fuel	Y	68476-34-6															
Petroleum Hydrocarbon	Red Diesel	Y	94114-55-3	10																		
Diesel	Diesel	Y	68334-30-5	2	Benzene	Y	25551-13-7	1.5	Naphthalen e	Y	91-20-3	1.5	Biphenyl	Y	92-52-4	1.5	Cumene	Y	98-82-8	1.5	Xylene	
Hydro Carbon	Diesel Fuel	Y	68476-34-6	2	Aliphatic & Aromatic Hydro Carbon	Y	68476346															
ECD ULTRA LOW SULFUR DIESEL	ECD ULTRA LOW SULFUR DIESEL	N		3	Petroleum Distillates	Y	8008-20-6															
Diesel Fuel #2- Red	Diesel Fuel #2- Red	N	68476-34-6		Nonane, all isomers	N	Mixture	3	Ethylmethyl benzenes, all isomers	N	25550-14-5	3	Naphthalen e	Y	91-20-3	2	Trimethylbe nzenes, all isomers	N	25551-12-7	2	Biphenyl(Dip	
Diesel Fuel Number 2	Diesel	Y	68476-34-6		mixture	Y	68476-34-6			N				N								
Diesel Fuel	Diesel Fuel	N	68334-30-5	2	diesel fuel	Y	68476-34-6	0.1	Naphthalen e	Y	91-20-3											
DIESEL=FUEL OIL	DIESEL=FUEL OIL	Y		10																		
Diesel Fuel No. 2	Diesel Fuel No. 2	N	68476-34-6	2	Distillates Hyrdodesulfurized Middle	Y	64742-80-9	100	distillates, straight run middle 9gas oil, light	Y	64741-44-2	25	kerosine	Y	8008-20-6	25	kerosine hydrodesulf urized	Y	64742-81-0	50	distillates	

POOR DATA EXAMPLE 2

 EHS material "Waste battery acid", location "Concentric area- Southeast end of the building. Gate 070." should be reported in pounds



Chemical Identification and Physical Properties

Chemical Name

Sulfuric Acid

Common Name CAS Number

Waste battery acid 7664-93-9

Physical State

Liquid

Hazardous Material Type

Pure

Should be hazardous waste

Chemical Hazard Classification

EHS

Yes

Fire Code Hazard Classes (by priority)

Corrosive

DOT Hazard Class

8 - Corrosives (Liquids and Solids)

Radioactive

No

Water Reactive, Class 2

Toxic

State Waste Code

Curies

Oxidizing, Class 1

Inventory Location and Quantity

Chemical Location

Average Daily Amount

110

Maximum Daily Amount

110

Units

- gallons
 cubic feet
 pounds
 tons

Chemical Location Confidential EPCRA

Yes No

Largest Container

55

Annual Waste Amount

55

Map # (Optional)

Grid # (Optional)

Days on Site

365

- EHS not reported in pounds
- Common name indicates it is a hazardous waste but the material type is listed as pure
- Should not have a chemical name and common name
- Hazardous waste and Hazardous Material combined

COMING
2027

CERS  ***NextGen***

DATA FIELDS IN CERS

In 2013 mandatory fields in CERS were identified to maximize submittal success but do not reflect legally required information.



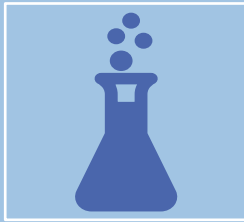
Data fields are driven by regulations, statutes, and local ordinances



**INVENTORY
DATA WILL
NEED TO BE
RE-ENTERED**



NEXTGEN DATA FIELDS HAZARDOUS MATERIALS INVENTORY*



Chemical

Chemical name

CAS #

Federal Hazard Category

Quantity



Mixture

Common name

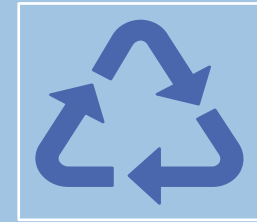
CAS # of components

Chemical components

Federal Hazard Category

Max % by wt per SDS

Quantity



Waste*

Common name

CA Waste code

Chemical components

CAS # of components

Quantity

*HW reporting dependent
on quantity stored and
local ordinances

NEXTGEN DATA VALIDATION



CAS # and chemical name will be validated against source of record CAS database



New hard stop on data entry to force all data fields to be completed or not allow a submittal.



New Libraries are being developed to assist with data entry.

HAZARDOUS MATERIALS INVENTORY WORKING GROUP

- **Developing mixture library for data entry**
- **Members Needed!**
- **E-mail CERSNextGen@calepa.ca.gov if interested**



Background and Tips for Data Entry*

***It is the responsibility of businesses and UPAs to ensure data in CERS is complete and accurate.**

A business is required to comply with applicable rules and regulations.





SAFETY DATA SHEETS (SDS)

- NOT MSDS – those are old and non-compliant
- Required to comply with CalOSHA and OSHA for format
- Hazardous materials must ship with a SDS
- SDS must be retained onsite and after business closure
- California Fire Code required SDS on site
- Can be found online or requested from manufacturer
- <https://chemicalsafety.com/sds-search/>

CAS COMMON CHEMISTRY :

[HTTPS://COMMONCHEMISTRY.CAS.ORG](https://commonchemistry.cas.org)

SDS LOOK UP:

[HTTPS://CHEMICALSAFETY.COM/SDS-SEARCH/](https://chemicalsafety.com/sds-search/)

Product Name	Manufacturer	CAS #	CS DISTRI- BUTION ID	Revision date	HTTP REF
Water	Acros Organics	773 2-1 8-5	22048 88	1/18 /201 8	https://assets.thermofisher.com/TFS-Assets/GC/Acros-Organics/SDS/AC32739_EN.pdf
Water	AirGas		32444 429	10/1 0/20 21	https://www.airgas.com/msds/001130.pdf
Water	Alfa Aesar	773 2-1 8-5	24938 45	11/1 6/20 21	https://assets.thermofisher.com/directwebviewer/private/results.aspx?page=NewSearch&LANGUAGE=d_EN&SUBFORMAT=d__CLP1&SKU=ALFAAC38939&PLANT=d__ALF
Water	Ambion, Inc		34320 805	6/3/ 200 9	https://assets.thermofisher.com/TFS-Assets/LSG/SDS/AM9910G_MTR-NALT_EN.pdf

Over 100 SDS for water

CAS REGISTRY NUMBERS

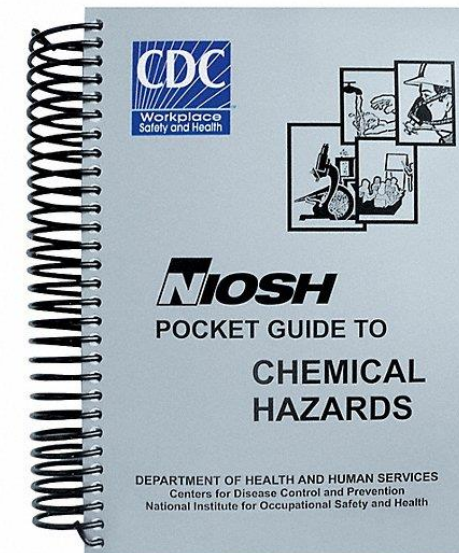
CAS Registry Numbers are unique, easily validated, and internationally recognized

Found on Safety Data Sheets

Will be validated in NextGen against the source of reference - CAS common chemistry



CAMEO *Chemicals*



Section 3. Composition/information on ingredients

Ingredient name	% by weight	CAS number
gasoline	≥89	86290-81-5
cumene	≤15	98-82-8
butane	≤14	106-97-8
ethyl alcohol	<11	64-17-5
xylenes	≥5 - ≤10	1330-20-7
toluene	≥5 - ≤15	108-88-3
trimethyl benzene	≥1 - ≤5	25551-13-7
pseudocumene (1,2,4-trimethylbenzene)	≥1 - ≤5	95-63-6
n-hexane	≥1 - ≤5	110-54-3
ethyl benzene	≥1 - ≤15	100-41-4
benzene	≤1.65	71-43-2
naphthalene	<1	91-20-3



REPORTING MIXTURE COMPONENTS

- Enter Max% wt of each component
- Report all hazardous components in a mixture greater than 1% by weight if non-carcinogenic,
- Report all hazardous components in a mixture greater than 0.1% by weight if carcinogenic
- Hazardous waste is not exempt from mixture requirements

FEDERAL HAZARD CATEGORIES

Hazard Class

- 24 options

Hazard Codes


- Unique per hazard Category
- H-#### format
- Multiple per hazard class

Hazard Statements

- Align with pictograms
- Unique per hazard Category
- Multiple per hazard class

HAZARD IDENTIFICATION

Section 2. Hazards identification










- OSHA/HCS status** : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
- Classification of the substance or mixture** :
FLAMMABLE LIQUIDS - Category 1
SKIN IRRITATION - Category 2
GERM CELL MUTAGENICITY - Category 1B
CARCINOGENICITY - Category 1B
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
ASPIRATION HAZARD - Category 1
- GHS label elements**
- Hazard pictograms** : 
- Signal word** : Danger

FEDERAL HAZARD CATEGORIES

Federal Hazard Categories

- PHYSICAL: Flammable
- PHYSICAL: Gas Under Pressure
- PHYSICAL: Explosive
- PHYSICAL: Self-heating
- PHYSICAL: Pyrophoric
- PHYSICAL: Oxidizer
- PHYSICAL: Organic Peroxide
- PHYSICAL: Self-reactive
- PHYSICAL: Pyrophoric Gas
- PHYSICAL: Corrosive to Metal
- PHYSICAL: In Contact with Water Emits Flammable Gas
- PHYSICAL: Combustible Dust
- PHYSICAL: Hazard Not Otherwise Classified (HNOC)
- HEALTH: Carcinogenicity
- HEALTH: Acute Toxicity
- HEALTH: Reproductive Toxicity
- HEALTH: Skin Corrosion or Irritation
- HEALTH: Respiratory or Skin Sensitization
- HEALTH: Serious Eye Damage or Eye Irritation
- HEALTH: Specific Target Organ Toxicity
- HEALTH: Aspiration Hazard
- HEALTH: Germ Cell Mutagenicity
- HEALTH: Simple Asphyxiant
- HEALTH: Hazard Not Otherwise Classified (HNOC)

HCS Pictograms and Hazards

<p>Health Hazard</p>  <ul style="list-style-type: none"> • Carcinogen • Mutagenicity • Reproductive Toxicity • Respiratory Sensitizer • Target Organ Toxicity • Aspiration Toxicity 	<p>Flame</p>  <ul style="list-style-type: none"> • Flammables • Pyrophorics • Self-Heating • Emits Flammable Gas • Self-Reactives • Organic Peroxides • Desensitized Explosives 	<p>Exclamation Mark</p>  <ul style="list-style-type: none"> • Irritant (skin and eye) • Skin Sensitizer • Acute Toxicity (harmful) • Narcotic Effects • Respiratory Tract Irritant • Hazard Not Otherwise Classified (non-mandatory) • Hazardous to Ozone Layer (non-mandatory)
<p>Gas Cylinder</p>  <ul style="list-style-type: none"> • Gases Under Pressure • Chemicals Under Pressure 	<p>Corrosion</p>  <ul style="list-style-type: none"> • Skin Corrosion/Burns • Eye Damage • Corrosive to Metals 	<p>Exploding Bomb</p>  <ul style="list-style-type: none"> • Explosives • Self-Reactives • Organic Peroxides
<p>Flame Over Circle</p>  <ul style="list-style-type: none"> • Oxidizers 	<p>Environment (non-mandatory)</p>  <ul style="list-style-type: none"> • Aquatic Toxicity 	<p>Skull and Crossbones</p>  <ul style="list-style-type: none"> • Acute Toxicity (fatal or toxic)

Section 2. Hazards identification

Hazard statements

- : H224 - Extremely flammable liquid and vapor.
- H304 - May be fatal if swallowed and enters airways.
- H315 - Causes skin irritation.
- H336 - May cause drowsiness or dizziness.
- H340 - May cause genetic defects.
- H350 - May cause cancer.

Precautionary statements

- P101 - If medical advice is needed, have product container or label at hand.
- P102 - Keep out of reach of children.
- P103 - Read label before use.

Prevention

- : P201 - Obtain special instructions before use.
- P202 - Do not handle until all safety precautions have been read and understood.
- P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P240 - Ground and bond container and receiving equipment.
- P241 - Use explosion-proof electrical, ventilating or lighting equipment.
- P242 - Use non-sparking tools.
- P243 - Take action to prevent static discharges.
- P261 - Avoid breathing vapor.
- P264 - Wash thoroughly after handling.
- P271 - Use only outdoors or in a well-ventilated area.
- P280 - Wear protective gloves, protective clothing and eye or face protection.

Response

- : P301 + P310, P331 - IF SWALLOWED: Immediately call a POISON CENTER or doctor. Do NOT induce vomiting.

Flammable	Gas Under Pressure	Explosive	Self Heating	Pyrophoric	Oxidizer	Organic Peroxide	Self Reactive	Pyrophoric Gas	Corrosive To Metal
H220	H280	H231	H240	H250	H270	H240	H241	H220	H290
H221	H281	H230	H241	H220	H271	H241	H242	H232	
H224		H206	H242	H232	H272	H242	H251		
H225		H207	H251				H240		
H226		H208	H252						
H227		H209							
H228		H210							
H230		H211							
H231		H205							
H232		H204							
		H203							
		H202							
		H201							
		H200							

PHYSICAL HAZARDS

Carcinogenicity	Acute Toxicity	Reproductive Toxicity	Skin Corrosion or Irritation	Respiratory Skin Sensitization	Serious Eye Damage or Irritation	Specific Target Organ Toxicity	Aspiration Hazard	Germ Cell Mutagenicity	Simple Asphyxiant
H350	H300	H360	H314	H334	H318	H335	H304	H340	H304
H351	H301	H360F	H315	H335	H319	H336	H305	H341	H305
	H302	H360D	H316		H320	H370			
	H303	H360FD	H320		H315	H371			
	H310	H360Fd				H372			
	H311	H361				H373			
	H312	H361f							
	H330	H361d							
	H331	H361fd							
	H332	H362							
	H333								
	H313								

HEALTH HAZARDS

HAZARDOUS MATERIALS INVENTORY

- IT IS RECOMMENDED THAT BUSINESSES START PREPARING NOW FOR NEW DATA REQUIREMENTS.
- MULTIPLE COMMITTEES ARE WORKING ON NEW REFERENCES FOR DATA ENTRY IN NEXTGEN.
- NEW DATA REQUIREMENTS ARE NEEDED TO IMPROVE DATA QUALITY AND ENSURE COMPLIANCE WITH REGULATION.

STAY INFORMED

PROJECT WEBSITE
MAILING LIST
MONTHLY
TOWNHALLS



Contacts:

CERSNextGen@calepa.ca.gov

OR

HMBP@calepa.ca.gov

27th California Unified Program
Annual Training Conference
March 24-27, 2025