

Tales From the Front

A Panel Presentation:

Implementing HCS 2012 from the Perspective of Small Lubricant Manufacturers

Society of Chemical Hazard Communication
Spring Meeting
Tuesday, April 19, 2016

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Objectives

- Provide insight on experiences in the HCS 2012 conversion and compliance journey
- Provide examples of various Interpretations of the standard as observed by SDS that are being published
- Initiate discussion

Quotes Heard at the Frontlines.....

- It has a “GHS” SDS so it can be shipped anywhere in the world!! It doesn’t matter if the product /components are registered
- A (non- country specific) UN GHS SDS is compliant for any country!?
- Why are the Classifications so different from one supplier to another? Aren’t there “Industry Standards” ?
- It is a CAS level substance or widely used “commodity chemicals ” so they have to be classified the same way!
- A EU CLP SDS is ok when using the product in the United States.
- I’ll change the SDS just tell me what you want me to say on it!

Section 2: Hazard(s) Identification

This section identifies the hazards of the chemical presented on the SDS and the appropriate warning information associated with those hazards. The required information consists of:

- The hazard classification of the chemical (e.g., flammable liquid, category¹).
- Signal word.
- Hazard statement(s).
- Pictograms (the pictograms or hazard symbols may be presented as graphical reproductions of the symbols in black and white or be a description of the name of the symbol (e.g., skull and crossbones, flame).
- Precautionary statement(s).
- Description of any hazards not otherwise classified.
- For a mixture that contains an ingredient(s) with unknown toxicity, a statement describing how much (percentage) of the mixture consists of ingredient(s) with unknown acute toxicity. Please note that this is a total percentage of the mixture and not tied to the individual ingredient(s).

Section 2 – HNOC

HazCom 2012 Regulatory Text on HNOC

- "Hazard not otherwise classified (HNOC)" means an adverse physical or health effect identified through evaluation of scientific evidence during the classification process that does not meet the specified criteria for the physical and health hazard classes addressed in this section. This does not extend coverage to adverse physical and health effects for which there is a hazard class addressed in this section, but the effect either falls below the cut-off value/concentration limit of the hazard class or is under a GHS hazard category that has not been adopted by OSHA (e.g., acute toxicity Category 5).

Section 11: Toxicological Information

This section identifies toxicological and health effects information or indicates that such data are not available. The required information consists of:

- Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact). The SDS should indicate if the information is unknown.
- Description of the delayed, immediate, or chronic effects from short- and long-term exposure.
- The numerical measures of toxicity (e.g., acute toxicity estimates such as the LD50 (median lethal dose)) - the estimated amount [of a substance] expected to kill 50% of test animals in a single dose.
- Description of the symptoms. This description includes the symptoms associated with exposure to the chemical including symptoms from the lowest to the most severe exposure.
- Indication of whether the chemical is listed in the National Toxicology Program (NTP) Report on Carcinogens (latest edition) or has been found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs (latest editions) or found to be a potential carcinogen by OSHA

Section 2 - Observation

Is this compliant to HCS 2012?

2.	Section 2:	Hazards Identification:
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2.1 Classification of the substance or mixture

GHS Product Classification

Flammability (1-3=flammable, 4=combustible, 5=non-flammable)
Acute Toxicity (1=most severe, 4=least)
Skin Irritation (1=most severe, 4=least)
Eye Irritation (1=most severe, 4=least)

(GHS Classification)

Category 5 – Non-flammable
Category 3 - Mild Hazard, Oral (ATE)
Category 2 - Moderate Skin Irritation
Category 2A- Eye Irritation

STOT = Specific Target Organ Toxicity

STOT SE/acute (1=most severe, 4=least)

STOT RE/chronic (1=most severe, 4=least)

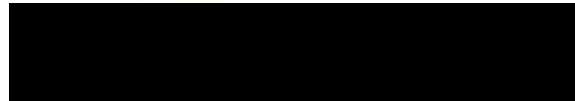
(GHS Classification)

2 Moderate Hazard – Eye/Skin Irritant

3 Slight Hazard – Eye/Skin Irritant

2.2 Label Elements

Product Name:



Hazard Pictograms

GS07 Exclamation Point / Eye/Skin/inhalation Irritant. Avoid contact with skin and eyes.



Signal Word: Warning

Section 2 - Observation

US SDS –providing information for multiple entities/generic. Does it comply to HCS 2012 or does it cause confusion

2. HAZARDS IDENTIFICATION

Classification	<p>This product does not meet classification under the Canadian WHMIS regulations.</p> <p>This product does not have health or physical hazards that meet the classification criteria under the OSHA Hazard Communication GHS scheme.</p> <p>This product does not have health, physical, or environmental hazards that meet the classification criteria under the United Nations (UN) GHS scheme. However, it may have potential to persist in the aquatic environment, therefore the Hazard Statement and Precautionary Statements proscribed by the UN GHS for classification under Category 4 of Hazardous to the Aquatic Environment – Long-Term Hazard, are included below.</p>
Signal Word	None
GHS Hazard Statement	<ul style="list-style-type: none">• H413 – May cause long lasting harmful effects to aquatic life
GHS Precautionary Statements	<ul style="list-style-type: none">• P273 – Avoid release to the environment.• P501 – Dispose of contents/container in accordance with government regulations and in accordance with manufacturer instructions in Section 13 of this SDS.

Section 2 – Observation

Information (HNOC) noted below from US SDS:
Other Hazards which do not result in classification

- Is this presented as intended by HCS 2012

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Chronic aquatic toxicity : Category 3

GHS Label element

Hazard Statements : H412 Harmful to aquatic life with long lasting effects.

Precautionary Statements

: **Prevention:**
P273 Avoid release to the environment.
Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards which do not result in classification

May irritate eyes.
May irritate skin.
May cause irritation of respiratory tract.
May be harmful if swallowed.

Section 11 - Observation

Is this compliant to HCS 2012?

- Section 11 to provide supporting data for Section 2?
 - Experience is that many of the SDS we see do not have data in this section and informational “statements” are inconsistent with the Classifications in Section 2.

11.	Section 11:	Toxicological Information
<u>11.1 Information on toxicological effects</u>		
Mixture:	Do not add nitrites to this product. Reaction of nitrite with amines can lead to the formation of cancer causing nitrosamines.	
Acute toxicity:	Acute toxicity rating: Category 4 - Slight Hazard, Oral (ATE)	
Inhalation:	Inhalation toxicity rating: Category 3 Mild Hazard – mists may irritate mucous membranes and upper respiratory tract	
Irritation:	Skin Irritation rating: Category 3 - Mild Skin irritation Eye Irritation rating: Category 2B - Mild Eye Irritation	
Corrosivity:	Not classified.	
Sensitization:	It is not a skin sensitizer.	
STOT - single exposure:	4 Slight Hazard – Eye/Skin Irritant	
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Repeated exposure toxicity:	4 Slight Hazard – Eye/Skin Irritant	
Carcinogenicity:	Not classified.	
Mutagenicity:	Not classified.	
Toxicity for reproduction:	None anticipated.	

One Size Does Not Fit All....

If US and Non-US companies are providing Non-OSHA SDS or a Hybrid SDS for product used/sold in the United States.....

Then there can be confusion.

- HCS 2012 specifically states this should not happen if other country information is provided on the SDS/Label.

Global Marketplace (NA, APAC, SA, EU, etc.)

- Doing business in multiple countries requires understanding and complying with the Hazard Communication requirements for each of those countries. Each have specific requirements for SDS /Labeling
- A country’s integration of aspects of UN GHS does not mean that there is “Harmony” globally in our ability to communicate information on hazardous materials.

Global Disconnect – example

Ingredient List on current Korea MSDS from Korean Distributor – matches same section of US MSDS – date 2010

- Korea implemented and compliant to GHS since 2013 (newest update of MOE uses Rev 4 UN GHS std.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Name	Usual name	CAS No.	Concentration (%)
C10-13 ISOALKANES	ALKANES, C10-13-ISO	68551-17-7	60
C10-14 ISOALKANES	ALKANES, C10-14-ISO	68551-18-8	40

Ingredient List (same product) - UN GHS SDS (non –country specific) for APAC region and US OSHA SDS – both provided by the manufacturer of the material.

SECTION 3 **COMPOSITION / INFORMATION ON INGREDIENTS**

This material is defined as a complex substance.

Hazardous Substance(s) or Complex Substance(s) required for disclosure

Name	CAS#	Concentration*	GHS Hazard Codes
NAPHTHA (PETROLEUM), HYDROTREATED HEAVY	64742-48-9	100 %	H227, H304

- US Manufacturer of US material sells and exports to Korean Distributor
- Korean Distributor sells to Korean manufacturing facility to manufacturer finished product that is then shipped to multiple countries in APAC region.
- Response from US based company to inquiry about the CAS#s used on Korea MSDS from Korean Distributor for their US product (prior slide)
 - Korean importer of the material is responsible for development of the country specific M/SDS.
 - US company provides data to develop the Korea MSDS but should not be needed since material has CAS # identification.

Thank You!
Time for Discussion & Questions...