

GHS: Is everything harmonized?



Before GHS



After GHS

GHS is not completely harmonized after adoption by different regulatory authorities, because of:

- 1. Different building blocks and different cut-off values
- 2. Different classification category levels for different countries
- 3. Different interpretation of UN purple book

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In this poster we present five examples of challenges we have faced while classifying our products according to GHS.

Respirable silica: Does the size matter?

Prolonged inhalation of respirable silica may cause silicosis and lung cancer. But what if we have a product containing < 0.1% respirable size silica? Although many companies in EU didn't classify their coarse sand as hazardous, we classified ours as carcinogen and STOT for US, after reading OSHA's interpretation for respirable silica.

The classification for our product is:

Carcinogenicity category 1A STOT chronic category 1



Facing the challenges in GHS classification: When the harmonized system is not so harmonized

Jing Sun, Armanda Erdle and Ying Zhen Belzona Global, 14300 NW 60th Avenue, Miami Lakes, FL 33014





We have a substance with acute toxicity by inhalation LC_{50} 0.39 mg/L. The highly respirable aerosol used in the test is ideal to fully investigate the potential inhalation hazard of the substance, but it does not reflect realistic conditions.

EU: data may be adjusted US: should classify according to test data

The classification for our product is:

US:

Acute toxicity (inhalation) category 2



Cut-off values: Small amount makes a big difference

We have a category 1B reproductive toxin in one of our products, and the concentration is between 0.1 and 0.3%.

EU: cut-off 0.3% for classification US: cut-off 0.1% for classification

The classification for our product is:

US:

Reproductive toxicity category 1B







Harmonized system, Not so harmonized classification

Classification of triethylenetetramine for EU seems easy at the beginning:

Acute toxicity (dermal) data we have is 805 mg/kg, so it is category 3.

But CLP harmonized classification shows it is category 4 (minimum classification), and people tend to follow it...



And category 4 is consistent with transportation classification (corrosive but not toxic), so category 4 it is...

But what about the data in section 11?

What if we sell it to countries who classify it as category 3 (Japan, New Zealand)? Is everything still harmonized?

Similar look, Not always the same meaning

We have an eye corrosive product labeled with a corrosion pictogram, but it is not regulated for transportation. Our transportation people got confused due to the similarity of GHS pictogram and transportation placard.



EU:

Acute toxicity (inhalation) category 4



EU:

Not classified

No pictogram

Which product would you choose?