

ELEVATE
TO ORANGE



Transitioning to the
Globally Harmonized
System

- GHS Overview
- GHS and OSHA HazCom Compared
- MSDS Authoring Considerations
- Timeline for Adoption
- 7 Tips to Transition
- GHS Resources



- Globally Harmonized System of Classification and Labeling of Chemicals
 - Standardized approach to:
 - define health, physical and environmental hazards
 - classify hazards
 - communicate hazards in the workplace & beyond
 - Guide for national chemical safety programs



- Unified Communication
- Enhanced Protection
- Improved International Trade
- Reduced cost



GHS Timeline

International mandate issued by UNCED to develop Hazard classification and labeling system to assist with international communication

first edition approved, published in 2003

ANPR published by OSHA

Nov - public comment period closed

EU sets 3 year transition for pure substance, 5 year transition for mixtures

UN recommends international implementation goal

Expected draft of final ruling and adoption in the U.S



1992

2000

2003

2005

2006

2007

2008

2009

2010

2011+

Subcommittee of experts created by UN

OSHA indicates that HCS will align with GHS

GHS 2nd revision is published







Europe adopted the proposed act to align the current EU system with GHS

Rulemaking and Implementation

OSHA releases NPRM in United States

Anticipated 3 year transition period starting in 2011



Region	Status
EU 	Adopted its regulation to align with the GHS in December 2008. Is in the process of implementation of substances first then mixtures – 3yr transition for pure substances, 5 yr for mixtures.
China 	GHS implementation effective as of July 1, 2009
Korea 	Revised their Industrial Safety and Health Act for GHS alignment June 30, 2010 for substances and June 30, 2014 for mixtures.
Japan 	the first country to publish classification of 1500 chemicals according to GHS standards. The GHS was introduced to their Industrial Safety and Health Law (ISHL) with 640 listed chemicals in which SDSs were required as of May 31, 2007.
New Zealand 	to adopt by July 1 2008
Canada 	Still working on GHS preparation. Consultation with stakeholders is ongoing. Economic analysis is required. GHS implementation will be at least two years once the legislative process starts. Planning on a transition period.

POSITION

- Revise HCS to align with the GHS
- Maintain framework, enhance protection

TIMETABLE

- Notice of Proposed Rulemaking in review
- Possible 2011 for adoption

ENFORCEMENT

- Training within 2 years of final rule and full compliance within 3 years
- During transition, compliance with either current or new rule is sufficient

1

MSDS

MSDSs will need to be updated or re-authored to meet GHS guidelines

2

Labels

Labels will need to be reprocessed during transition. Standardized pictograms, signal words, hazard statements will be required.

3

Communication

Updated safety data sheets and labels will need to be circulated and distributed to stakeholders


4

Training

Employees must be trained on the new content and format of SDSs and chemical labels



- Safety Data Sheets
- GHS Format: 16 sections required, in specified order
- Reclassification based on GHS Criteria
 - Health & Environmental
 - Physical
 - Building Block Approach

Safety Data Sheet 

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

MATERIAL NAME: FLAMMABLE MATERIAL

CHEMICAL NAME:	Mixture	PRODUCT CODE:	1323
CAS NUMBER:	No Data Available	EU NUMBER:	No Data Available
EINECS:	No Data Available	MOLECULAR WEIGHT:	46.08
MOLECULAR FORMULA:	No Data Available		

PRODUCT DESCRIPTION: CLEAR, COLORLESS LIQUID WITH FRAGRANT ODOR AND CHARACTERISTIC BURNING TASTE.

SYNONYMS: Ethanol

Company Identification
INDUSTRIAL DATA SYSTEMS
709 Nissan Drive
Smyrna, TN 37167
United States

Web Address: <http://www.sitehawk.com>


Phone Numbers
General Information: 515-459-0064
Emergency: 800-555-5555

SECTION 2 - HAZARDS IDENTIFICATION

Emergency Overview

DANGER
Highly flammable liquid and vapor. Causes severe skin burns and eye damage. May be harmful if inhaled. May cause respiratory irritation and drowsiness or dizziness. May cause cancer. May damage fertility or the unborn child. Very toxic to aquatic life.

Prevention	Avoid breathing dust, fume, gas, mist, vapours and/or spray. Wear protective gloves, clothing, and eye/face protection. Wash thoroughly after handling. Do not handle until all safety precautions have been read and understood. Ground and/or bond container and receiving equipment. Keep away from heat, sparks, open flames and/or hot surfaces - No smoking. Use explosion-proof electrical, ventilating and/or lighting equipment. Use only non-sparking tools. Avoid release to the environment.
Response	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention. IF INHALED: Call a POISON CENTER or doctor/physician if you feel unwell. IF INHALED: Remove victim to fresh air and keep at rest in position comfortable for breathing. In case of fire: Use appropriate media for extinction.
Storage/Disposal	Dispose of content and/or container in accordance with local, regional, national, and/or international regulations. Store in a well-ventilated place. Keep container tightly closed. Store locked up.



Health, Environmental, & Physical Hazards

Health & Environmental	Physical	Physical (cont)
Acute toxicity	Explosives	Pyrophoric liquids
Skin corrosion/irritation	Flammable gases	Pyrophoric solids
Serious eye damage/eye irritation	Flammable aerosols	Self-heating substances and mixtures
Respiratory or skin sensitization	Oxidizing gases	Substances and mixtures which, in contact with water, emit flammable gases
Germ cell mutagenicity	Oxidizing gases	Oxidizing liquids
Carcinogenicity	Gases under pressure	Oxidizing solids
Reproductive toxicity	Flammable liquids	Organic peroxides
Specific target organ toxicity	Flammable solids	Corrosive to metals
Aspiration hazard	Self-reactive substances and mixtures	
Hazardous to the aquatic environment		
Hazardous to the ozone layer		



How Will the Label Change?

- No longer performance oriented, labels will be standardized.
 - Signal Words
 - Hazard Statements
 - Precautionary Statements (in 2007 revision)
 - Pictograms



Chart 1: Standardized GHS Pictograms

FLAMMABLE MATERIAL

Hazardous Components: Ethyl Alcohol (64-17-5); Methanol (67-56-1)

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2 percent of this product consists of an ingredient of unknown toxicity.

Industrial Data Systems 709 Nissan Drive Smyrna, TN 37167
Emergency: 800-555-5555



- During transition, new safety data sheets and labels will need to be circulated and managed by chemical suppliers and users
- Employees must be trained on content and format in Labels and Safety Data Sheets

- Hazard evaluation vs. hazard classification
- Use of the term “chemical”
- Discussion of unclassified hazards
- Trade secrets
- “Building Block” approach

- Hazard Classifications

CURRENT HCS	NPRM
Performance-centric	Specific and prescribed
	Classification means that hazards are evaluated for existence <u>and</u> severity
	Hazards covered: <ul style="list-style-type: none">• All health except acute toxicity (cat 5), corrosion & irritation (cat 3), and aspiration (cat 2)• All physical• No environmental
	Discussion of mixture impact

- Inconsistent hazard classification at the pure substance level
- Individual country classifications can vary
- Self-classification may require a steep learning curve

RECOMMENDED APPROACH

1. Generate a list of all products sold by country and/or region
2. Break down products into their components
3. Analyze existing formulations against regulatory indices
4. Begin GHS classification or identify external classification source - consider country-specific requirements
5. Update or re-author safety data sheets (SDS)
6. Create GHS-compliant labels (ideally from authoring system)
7. Communicate & distribute new SDS and labels



- Public hearings scheduled
 - March 2: Washington, D.C
 - March 31: Pittsburgh
 - April 13: Los Angeles
- Public record closes
- OSHA prepares final rule

1. Get informed
2. Watch timetables
3. Don't go it alone
4. Leverage your chemical data management system
5. Create and post new labels
6. Ensure authoring team or service provider is GHS-compliant
7. Train your workforce



- GHS text, UN papers and reports
www.unece.org/trans/danger/danger.htm
- OSHA GHS information
www.osha.gov/SLTC/hazardcommunications/global.html
- EPA GHS information
www.epa.gov/oppfead1/international/globalharmon.htm
- DOT GHS information
www.hazmat.dot.gov/regs/intl/globharm.htm
- Canada GHS information
http://www.hc-sc.gc.ca/ewh-semt/occup-travail/whmis-simdut/ghs-sgh/index_e.html
- www.ghsinformation.com



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For more information, contact:

Scott Williams

swilliams@sitehawk.com

Ruth Mayo

rmayo@sitehawk.com