syngenta

Adoption of the GHS and Communication of Pesticide Hazards

Purpose of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

- (a) To enhance the protection of human health and the environment by providing an internationally comprehensible system for hazard communication
- (b) To provide a recognized framework for countries without an existing system
- (c) To reduce the need for testing and evaluation of chemicals; and
- (d) To facilitate international trade in chemicals whose hazards have been properly assessed and identified on an international basis

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OSHA has updated their Hazard Communication Standard (29 CFR 1910.1200) to adopt the GHS.

- All OSHA hazardous chemicals will be <u>classified</u> using the GHS criteria.
 Environmental hazards are not required or enforceable by OSHA.
- GHS standards for <u>labels</u> will be adopted for chemicals.
- <u>Safety Data Sheets</u> (SDS) will adopt the format, signal word identification, hazard statements, and precautionary statements from GHS.
- Labels and SDSs will include pictograms.
- Language and pictograms on existing chemical products will change before June 1, 2015















GHS Classification

Health and Environmental Hazards Defined in GHS

- Acute toxicity
- 2. Skin corrosion/irritation
- 3. Serious eye damage/eye irritation
- 4. Respiratory or skin sensitization
- 5. Germ cell mutagenicity
- 6. Carcinogenicity
- 7. Reproductive toxicity
- 8. Specific target organ toxicity-single exposure
- 9. Specific target organ toxicity-repeated exposure
- 10. Aspiration hazard
- 11. Hazardous to the aquatic environment
- 12. Hazardous to the ozone layer



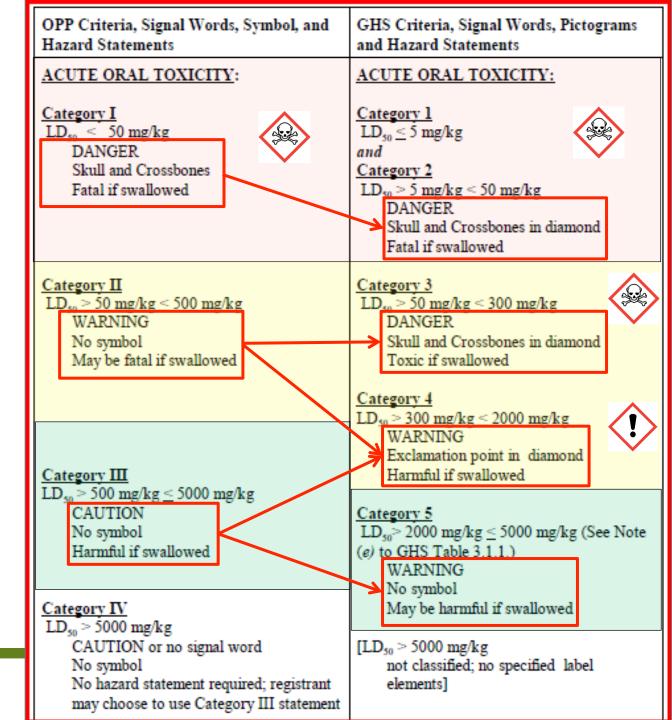


Health hazard classification differences

Hazard class	GHS	OPP
Acute toxicity (lethality)	Yes	Yes
Skin corrosion / Irritation	Yes	Yes
Serious eye damage / Irritation	Yes	Yes
Respiratory or skin sensitization	Yes	Skin only
Germ cell mutagenicity	Yes	No
Carcinogenicity	Yes	No
Reproductive toxicity	Yes	No
TOST / single Exposure	Yes	Methanol, Others?
TOST / repeat exposure	Yes	No
Aquatic toxicity	Yes	Yes -acute only



Signal Word, Graphic, and Hazard Statement Inconsistency



GHS Classification

Physical Hazards Defined in GHS

- Explosives
- 2. Flammable gases
- 3. Aerosols
- 4. Oxidizing gases
- 5. Gases under pressure
- 6. Flammable liquids
- Flammable solids
- 8. Self-reactive substances and mixtures



- 9. Pyrophoric liquids
- 10. Pyrophoric solids
- Self-heating substances and mixtures
- 12. Substances and mixtures which, in contact with water, emit flammable gases
- 13. Oxidizing liquids
- 14. Oxidizing solids
- 15. Organic peroxides
- 16. Corrosive to metals

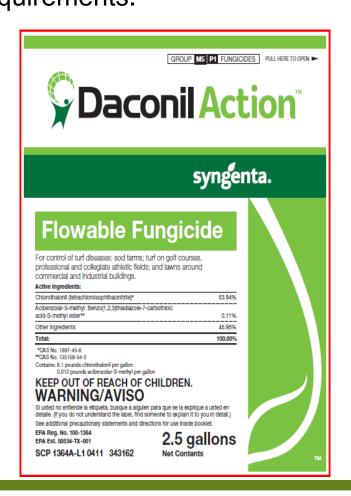


OPP does not specify classification criteria, symbols, signal words or label statements for physical hazards other than flammability



OSHA Hazard Communication Labelling

Consistent with earlier HazCom standards, packages labelled in compliance with EPA FIFRA requirements are excepted from OSHA HazCom labeling requirements.





* Other international regulatory bodies may require the application of GHS labels for import or export pesticide containers.



Safety Data Sheets

- The traditional term "Material Safety Data Sheet" is now replaced by "Safety Data Sheet"
- A specific 16-section format is required
- Pictograms are included on the SDS
- New GHS signal words, hazard statements and precautionary statements are used in SDS Section 2
- Signal Word Options WARNING or DANGER

EPA regards SDSs for pesticides to be labeling when they accompany the pesticide. Inconsistencies in classification, signal words, application of graphics, and precautionary statements may be viewed as misbranding.

* OPP PR Notice2012-1; April 19, 2012



Safety Data Sheets

Information should be presented as follows:

- 1. Identification
- 2. Hazard(s) identification
- 3. Composition/information on ingredients
- 4. First-aid measures
- 5. Fire-fighting measures
- 6. Accidental release measures
- 7. Handling and storage
- 8. Exposure controls/personal protection

- 9. Physical and chemical properties
- 10. Stability and reactivity
- 11. Toxicological information
- 12. Ecological information
- 13. Disposal considerations
- 14. Transport information
- 15. Regulatory information
- 16. Other information.



2. HAZARDS IDENTIFICATION

Classifications: Skin Corrosion/Irritation: Category 2

Oral: Category 4
Dermal: Category 4
Inhalation: Category 3

Skin Sensitizer: Category 1B Carcinogenicity: Category 2

Specific Target Organ Toxicity: Repeated Category 2 Specific Target Organ Toxicity: Drowsiness Category 3

Eye Damage/Irritation: Category 2A

Signal Word (OSHA): Danger

nger HCS Signal word.

Hazard Statements: Harmful if swallowed

Harmful in contact with skin

Causes skin irritation

May cause an allergic skin reaction

Causes serious eye irritation

Toxic if inhaled

May cause respiratory irritation

May cause drowsiness or dizziness

Suspected of causing cancer

May cause damage to organs (blood, liver, lung, kidney, spleen)

Hazard Symbols:







Pictograms that are required

GHS classification and

precautionary statements.

15. REGULATORY INFORMATION

Pesticide Registration:

Standard verbiage for differences with HCS labeling

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

Warning: Douses substantial but temporary eye injury. Harmful if swallowed May be fatal if inhaled. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

EPA Registration Number(s):

100-1364

EPCRA SARA Title III Classification:

Section 311/312 Hazard Classes: Acute Health Hazard

Chronic Health Hazard

Section 313 Toxic Chemicals: Chlorothalonil (53.94%) (CAS No.

EPA FIFRA Label Signal Word found on Pesticide Labels

California Proposition 65:

This product contains a chemical known to the State of California to cause cancer.

CERCLA/SARA 304 Reportable Quantity (RQ):

None

RCRA Hazardous Waste Classification (40 CFR)

Not Applicable

TSCA Status:

Exempt from TSCA, subject to FIFRA

n this section, the information will correspond with the Pesticide Label.

16. OTHER INFORMATION

NFPA Hazard Ratings HMIS Hazard Ratings

Health: 2 Health: 2 Flammability: 1 Flammability: 1

Instability: 0 Reactivity: 0

Syngenta Hazard Category: C,S

0 Minimal1 Slight2 Moderate3 Serious4 Extreme

For non-emergency questions about this product call:

1-800-334-9481

Original Issued Date: 5/3/2011

Revision Date: 9/10/2013 Replaces: 6/21/2012

Section(s) Revised: 1, 2, 3, 4, 5, 6, 8, 9, 15