

Object: GREENSOLV - how to read an MSDS like a pro

Date: May 28, 2013

Who would read a whole MSDS? Look only for the most important information!

Here are a few hints that you could use when reading an MSDS (Material Safety Data Sheet) :

1. **Is the product DANGEROUS?** LOOK for the WHMIS classification (normally in **Section 15 – Regulatory Information**)
See WHMIS most common classes below.
2. Look at **Section 5** for Flammability concerns (flash point) and look at **Section 9** for Physical and Chemical properties (mainly VOC content, density, pH)
3. **Verify CAS numbers (always in Section 2 or 3 of any MSDS).** The CAS number is an identification code for all chemical compounds. It is used around the world. Sometimes a chemical compound will have 2, 3, 4 or 5 different names, but only 1 CAS number.
Exemples : Ethanol CAS 64-17-5
 Mineral spirit CAS 64742-48-9

Use a FREE GOVERNMENTAL DATABASE to get independent information (hint : use CAS numbers for your search) :

CANADA

We recommend using the **REPTOX** database (Quebec's Health and Safety Committee)
<http://www.reptox.csst.qc.ca/Documents/SIMDUT/CasAng/Htm/CasAng.htm>
use the CAS numbers

INTERNATIONAL

For more information on the various HAZARDS of the product, on the recommended PREVENTION and on its FLAMMABILITY, use this free database :

ICSC – International Chemical Safety Cards (produced by ILO –International Labour Organization)

<http://www.ilo.org/dyn/icsc/showcard.home>

USA

For good and reliable information on the toxicity of one chemical compound, use the SCORECARD database

<http://scorecard.goodguide.com/chemical-profiles/>

General information

WIKIPEDIA

There is no getting around it. A very good site that gives you plenty of technical details on many chemical compounds such as: American regulation, European Union regulation, physical parameters, molecular formula and so on.

Simply type "ethanol Wikipedia" or its equivalent CAS, therefore, type "64-17-5 Wikipedia" on your favorite browser.

OFFICIAL REGULATIONS

CANADA

WHMIS: Workplace Hazardous Materials Information System

Most common classes of Hazardous Materials

FLAMMABILITY

- a. Class B :
 - i. B1 – Flammable Gas
 - ii. B2 – Flammable Liquid (flash point $\leq 37.8 / 100^{\circ}\text{F}$)
 - iii. B3 – Combustible Liquid (flash point 37.8 to $93.3^{\circ}\text{C} / 100$ to 200°F)



CORROSIVITY

- b. Class E : Corrosive material (Will burn the skin - this means it is an acid or a base)



TOXICITY

- c. Class D1:
 - i. D1A – Very Toxic Material causing Immediate and serious Toxic effects
 - ii. D1B – Toxic Material Causing Immediate and Serious Toxic Effects



- d. Class D2:
 - i. D2A – Very Toxic Material Causing Other Toxic effects (ex: carcinogens, etc.)
 - ii. D2B – Toxic Material Causing Other Toxic effects (ex: skin & eyes irritation)



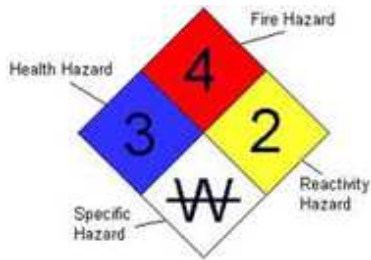
USA

NFPA 704: National Fire Protection Association

The NFPA system is used widely across the USA and also in many other places around the world.

Numbers ranging from 0 to 4 are used to classify the danger associated with each category : **0** for **NO DANGER** and **4** for **VERY DANGEROUS**

- BLUE HEALTH HAZARD
- RED FLAMMABILITY HAZARD
- YELLOW REACTIVITY HAZARD
- WHITE SPECIFIC HAZARD



Martin Pageau, ing./ P.Eng.

Greensolv inc.

(514) 457-8000

cell (514) 349-1642

www.greensolv.ca