

Global GHS Training Course

No.4 - China GHS features and local regulations

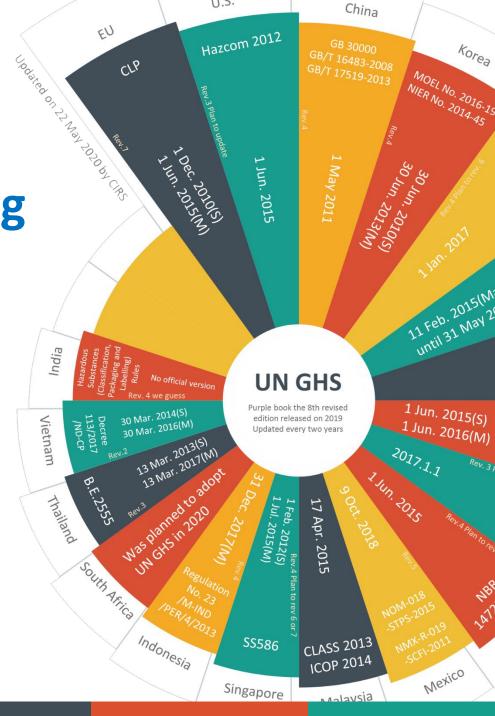




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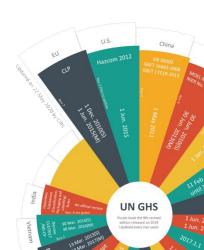
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GHS Standards



GHS Implementation in China



Scope of China GHS







GHS Regulations Regulation on the Safe Management of **Hazardous Chemicals in China (Decree No.591)** The Measures for Administration of SDS and Label Hazardous Chemicals Registration (SAWS Order No.53) Classification SDS Labelling Inventory Catalog of GB 30000 GB16483-2008 GB15258-2009 Hazardous series GB17519-2013 Chemicals (2015) May 1st 2010 To Nov 11th 2014 Feb 1st 2009 Apr 30th 2011

GHS Standard in China



The National Standards

2006	26 mandatory classification standards (GB) GB 20576 ~ GB 20602-2006
2008	3 advisory standards (GB/T) - GB/T 16483-2008 SDS for Chemical Products - Content and Order of Sections; - GB/T 22234-2008 Labelling of chemicals based on GHS; - GB/T 15098-2008 The principle of classification of transport packaging groups of dangerous goods;
2009	3 mandatory standards (GB) - GB 190-2009 Packing symbol of dangerous goods; - GB 13690-2009 General rule for classification and hazard communication of chemicals; - GB 15258-2009 General rules for preparation of precautionary label for chemicals;

GHS Standard in China



The National Standards

2010	3 mandatory standards which were released in 2009 came into force on May 1, 2010. There was a 1-year transition period.
2011	Decree No.591 came into force on Dec. 1, 2011. SDS and label according to National standards are required.
2013	28 mandatory classification standards are modified. GB30000.2-2013 ~ GB30000.29-2013; 1 advisory national standard is modified and released (GB/T) -GB/T 17519-2013 Guidance on the compilation of safety data sheet for chemical products
2014	GB/T 17519-2013 came into force on Jan 31, 2014. GB30000.2-29-2013 became effective on Nov. 1, 2014.



GHS Classification





GHS Classification

Classification Standards: GB 30000.2~29-2013 (effect on Nov 1, 2014)

Fully adopt UN GHS Rev. 4, 28 hazard classes, including Aspiration hazards and Hazards to the ozone layer;

Physical Hazards 16 Classes	Explosive, Flammable gases, Flammable aerosols, Oxidising gases, Gas under pressure, Flammable liquids, Flammable solids, Pyrophoric liquids, Pyrophoric solids, Self-heating substances and mixtures, substances and mixtures which are in contact with water emit flammable gases, Oxidising liquids, Oxidising solids, Organic peroxides, Corrosive to metals, Self-reactive substances and mixtures.
Health Hazards 10 Classes	Acute toxicity, Skin corrosion/irritation, Serious eye damage/irritation, Respiratory or skin sensitization, Germ cell mutagenicity, Carcinogenicity, Reproductive toxicity, Specific target organ toxicity- single exposure, Specific target organ toxicity-repeated exposure, Aspiration Hazard(*)
Environmental Hazards 2 Classes	Hazardous to the aquatic environment Hazardous to ozone layer

GHS Classification



Classification

Official Classification: Information sheet of hazardous chemicals classification (2015.08)



thylaniline.

http://hxp.nrcc.com.cn/hc safe info search.html

急性毒性-吸入,类别3*.







SDS

GB 16483-2008 National Standard on Safety Data Sheet For Chemical Products
GB 17519-2013 Guidance on the compilation of safety data sheet for chemical products

- > The SDS should be written in Chinese;
- For foreign manufacturer, Chinese domestic 24h emergency number is mandatory to provide in section 1 if it's hazardous chemical;
- ➤ Volume fraction or concentration range of ingredients should follow descending order;
- ➤ CBI: the CAS number and exact concentration of each ingredient could be kept as confidential but relevant hazards information shall be indicated.

1.Identification	9. Physical and Chemical Properties
2. Hazard overview	10. Stability and reactivity
3. Composition/information on ingredients	11. Toxicological information
4. First-aid measures	12. Ecological information
5. Fire-fighting measures	13. Disposal
6. Accidental release measures	14. Transport Information
7. Handling and storage	15. Regulatory information
8. Exposure controls/personal protection	16. Other information



Section 1 Identification

- Product Name (both in Chinese and English)
- Recommended Application and Restricted Application
- Supplier Identification
- Emergency Phone Number

Chinese Domestic & 24 Hour Available



类别1

Section 2 Hazard Identification

GHS危险性类别

物理危险 Physical Hazard

健康危险 Healthl Hazard

环境危险 Environmental Hazard

未被分类

急性毒性-经口 类别3

急性毒性-吸入 类别3

对水环境急性危害 类别1

对水环境慢性危害

标签要素

象形图: Pictogram

警示词:

Signal word

危险性说明:

H Statement

防范说明

P Statement

预防措施:





危险

吞咽会中毒。

吸入会中毒。

对水生生物毒性极大并具有长期持续影响。

作业后彻底清洗双手。

使用本产品时不得进食、饮水或吸烟。



Section 3 Composition/Information on Ingredients

物质或混合物: Chemical 成分: Name	CAS No.	Mixture		Ingredients
化学名称	CAS 号	EC 号	含量 (%)	V
钛酸四丁酯	5593-70-4	227-006-8	10-20%	
锌粉	7440-66-6	231-175-3	5-10%	
缩钛酸丁酯	9022-96-2		5-10%	
2-乙基-1-己醇钛	1070-10-6	213-969-1	1 - 5%	



Section 3

Mixture

Hazard Category		Cut-Off Value (%)	
Acute Toxicity		≥1.0	
Skin Corrosion/Irrit	ation	≥1.0	
Serious Eye Damag	e/Eye Irritation	≥1.0	
Respiratory or Skin	Sensitization	≥0.1	
Germ Cell	Category 1	≥0.1	
Mutagenicity	Category 2	≥1.0	
Carcinogenicity		≥0.1	
Reproductive Toxicity		≥0.1	
STOT- Single Exposure		≥1.0	
STOT – Repeated Exposure		≥1.0	
	Category 1	≥10 and dynamic viscosity≤20.5 mm ² /s (40°C)	
Aspiration Hazard	Category 2	≥10 and dynamic viscosity≤14 mm²/s (40°C)	
Hazardous to the aquatic environment		≥1.0	16



Section 8 Exposure Controls/ Personal Protection

GBZ 2.1-2019: occupational exposure limits for hazardous agents in the workplace

接触控制和个人防护

8.1 接触控制:

8.1.1 容许浓度:

乙酸-1-甲氧基-2-丙基酯

(CAS# 108-65-6)

1-甲氧基-2-丙醇

(CAS# 107-98-2)

IOELV(EU)

TLV(RC)

TLV(EU)

REL(USA)

MAC: Maximum Allowable Concentration

PC-TWA: Permissible Concentration-Time

Weighted Average

PC-STEL: Permissible concentration-Short Term

Exposure Limit

短期价值: 550mg/m³, 100ppm

长期价值: 275mg/m³, 50ppm

369mg/m³, 100ppm

短期价值: 568mg/m³, 150ppm

长期价值: 375mg/m³, 100ppm

短期价值: 540mg/m³, 150ppm

生物接触限值

组分名称	标准来源	生物监测指标	生物限值	采样时间
二甲苯	ACGIH(2009)	尿中甲基马尿酸	1.5 g/g 肌酐	班末



Section 9 Physical and Chemical Properties

Appearance (Form, Colour, State)	Vapor Pressure
Odour	Vapor Density
pH and concentration	Density/Relative Density
Melting Points/Freezing Point	Water Solubility
Boiling Point, Initial Boiling Point, Boiling Range	Partition coefficient n-octanol/water
Flash Point	Autoignition Temperature
Combustion Limit/Exposure Limit	Deacomposition Temperature



Section 11 Toxicological Information

Acute Toxicity	Carcinogenicity
Skin Corrosion/Irritation	Reproductive Toxicity
Eye Damage	STOT- Single Exposure
Respiratory/Skin Sensitization	STOT- Repeated Exposure
Germ cell mutagenicity	Aspiration Hazard



Section 12 Ecological Information

- ➤ Information of ecotoxicity;
- ➤ Durability and degradability;
- ➤ Potential bioaccumulation;
- ➤ Mobility in the soil.

More experimental data or ecological cut-off value is welcome!



Section 14 Transport Information

- >UN Number.
- ➤ UN Shipping Name.
- ➤ Hazard Classification of UN.
- ➤ Packaging Categories.
- ➤ Marine Pollutant.
- ➤ Special Precautions for Users.

Land Transportation

Inland Water Transportation

Maritime Transportation

Air Transportation







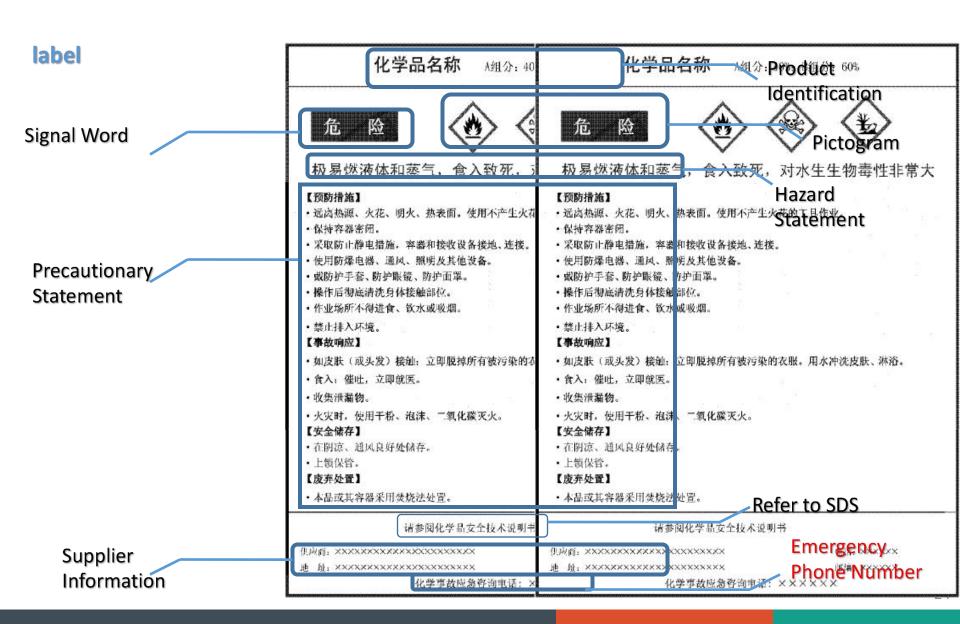
GB 15258-2009 National Standard on General Rules for Preparation of Precautionary Label for Chemicals

Special Requirements:

- Chemical name should be in both Chinese and English.
- For foreign manufacturer, a least one Chinese domestic 24h emergency number shall be provided in section 1.
- \triangleright Order of hazard statements: Physical Hazards > Health Hazards > Environmental Hazards.
- > No more than 5 of hazard chemical ingredients should be listed (Not mandatory)
- > A simplified label is applied to the package whose volume is less than 100ml.

Container or Package capacity (L)	Label Size
Capa. ≤0.1	simplified label
0.1 <capa.≤3< td=""><td>50*75</td></capa.≤3<>	50*75
3 <capa.≤50< td=""><td>75*100</td></capa.≤50<>	75*100
50 < Capa. ≤ 500	100*150
500 <capa.≤1000< td=""><td>150*200</td></capa.≤1000<>	150*200
1000 < Capa.	200*300

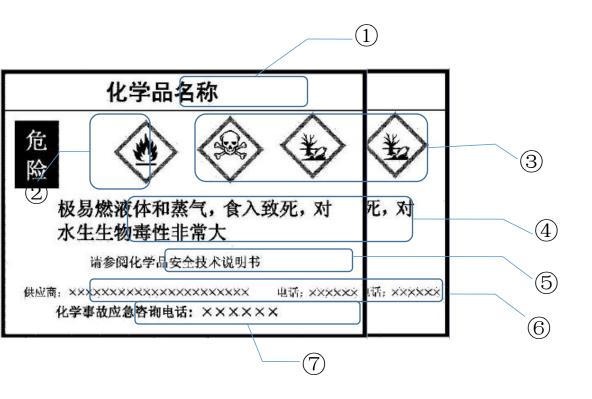






Simplified Label (≤100 ml)

GB15258-2009



- Product identification
- 2. Signal word
- 3. Pictogram
- 4. Hazard Statement
- 5. Refer to SDS
- 6. Supplier name and contact number
- 7. Emergency phone number

Precautionary Statement is omitted!



Packaging





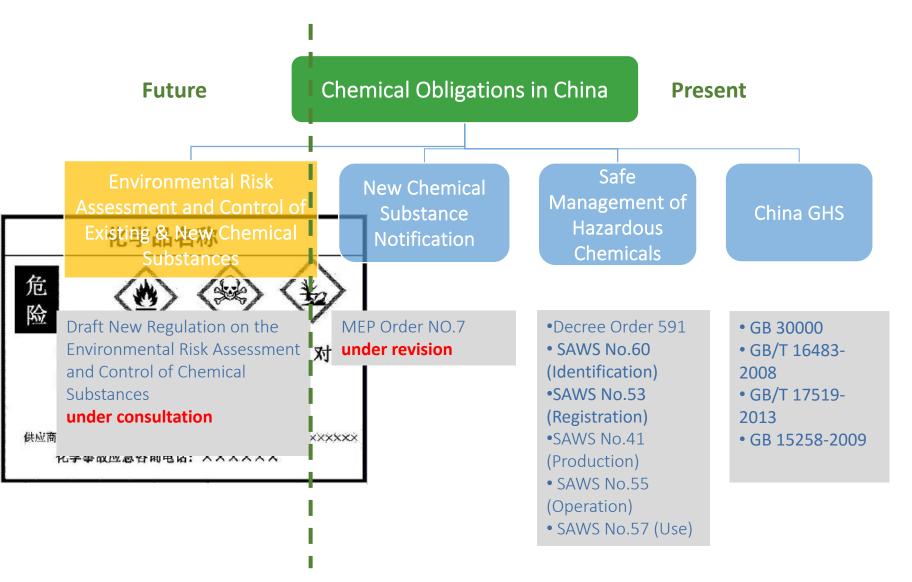


China Chemical Regulations in brief



Chemical Regulation Framework







MEP Order No. 7- Introduction



The revised version of the Provisions on Environmental Administration of New Chemical Substance (**MEP Order No.7**) issued in Jan 2010 and it has been implemented since Oct 15, 2010.

Prior to the manufacture or importation of a new chemical substance, manufacturer and importer (hereinafter cited as "registrant") shall notify the new chemical substances and obtain a new chemical substance environmental administration certificate (hereafter cited as "registration certificate").

Authority: Ministry of Environmental Protection (MEP)



Timeline

China REACH Regulation Review

2015.6.25

Revised Guidelines (Draft for comment) was published

2003.10.15 Order. 17 came into force

2010.10.15

Order No.7 came into force

2020.2.17
Passed the review by the Council of Ministers

2016.3.8
Draft revised
guidelines submitted
to WT0 for review

2017.8.31 Guidance data requirements adjustment announcement published

Late 2020 or early 2021, the guidance for Order N0.12 will come out

2020.4.29 Order No.12 issued 2019.7.9

The revised draft measures was released for consultation and submitted to the WTO for review on September

Measures on the Environmental Management Registration of New Chemical Substance



名 称	新化学物质环境管理登记办法		
索引号	000014672/2020-00609	分 类 固体废物与化学品管理	
发布机关	生态环境部	生成日期 2020-04-29	
文号	部令 第12号	主 题 词	

新化学物质环境管理登记办法

《新化学物质环境管理登记办法》已于2020年2月17日由生态环境部部务会议审议通过,现予公布,自2021年1月1日起施行。2010年1月19日原环境保护部发布的《新化学物质环境管理办法》(环境保护部令第7号)同时废止。

生态环境部部长 黄润秋

2020年4月29日

The Ministry of Ecology and Environment (MEE) issued the I revision of MEP Order No. 7 in final, "Measures on the Environmental Management Registration of New Chemical Substances" (MEE Order No. 12), on April 29, 2020, which will become effective January 1, 2021.

New chemical substance notification





Inventory of Existing Chemical Substances in China (IECSC, 2013)

First step: Preliminary searching

Log on http://apciss.cirs-group.com/
CAS number or English name. If the checking result shows that "the substance is not found in IECSC", go to second step.

Second step: Enquiry to Solid Waste and Chemical Management Center (SCC)

The applicant shall apply further IECSC enquiry to SCC to search confidential substance and confirm whether the substance is listed in IECSC or not



Notification Body

Applicant	Descriptions
Domestic Applicants	1 Chinese manufacturers or importers of new substances; 2 Certificate holders who are planning to change the registered application of a high environmental concern substance
Foreign Applicants	Foreign manufacturers /exporters who are planning to introduce new substances into China

Importer



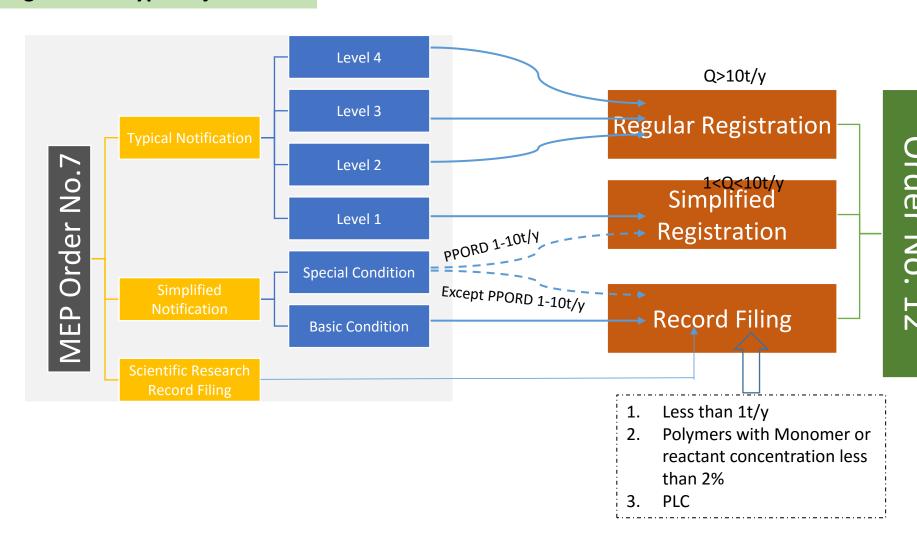
Chinese agent



MEP Order No.7 compare with MEE Order No.12



Registration Type Adjustment



China REACH Key Updates





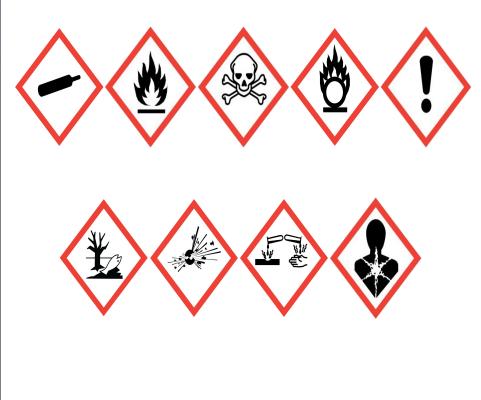
- ☐ Check if belongs to High hazardous Chemicals (PBT, vPvB)
- ☐ CBI protection may be changed (no more than 5 years)
- Post-notification obligations may be reduced
- ☐ How to add notified chemical substance into IECSC
- New use management objects may required
- Choose professional Agent and qualification Laboratory



Hazardous chemical definition

- 1. Chemicals in the Catalog of Hazardous Chemicals(~2828)
- 2. Chemicals within 81 GHS hazard classification

化学名(英文) /Name (EN)	CAS号/CAS No.	No.	NRCC-Hazardous Chemicals Classification Information Sheet
Opium	8008-60-4	Z3Z=368=	STOT RE 2
Ammonia, liquef ied or ammoniasolutio ns	7664-41-7	231-635- 3	Flam. Gas 2 Gases under pressureAcute Tox.3*- inhalation Skin Corr.1B Eye
3-aminomethyl- 3,5,5- trimethylcyclo hexylamine;iso phoronediamine ;3,3,5- trimethyl-4,6- diamino-2- enecyclohexano ne;4,6-diamino-	2855-13-2	220-666- 8	Skin Corr.1B Eye Irrit.1 Skin Sens.1 Aquatic Chronic 3





Hazardous chemical definition

Class	fications	Classes						
	Explosives	Unstabl e	1.1	1.2	1.3	1. 4	1. 5	1. 6
	Flammable Gases	1	2	A	В			
	Aerosols	1	2	3				
	Oxidizing Gases	1						
	Pressurized Gases	Compre ssed	Liquefie d	Refrigera ted	Dissolve d			
	Flammable Liquids	1	2	3	4			
	Flammable Solids	1	2					
Physicoche	Self Reactive Substances	Α	В	С	D	E	F	G
mical properties	Self Heating Substances	1	2					
	Pyrophoric Liquids	1						
	Pyrophoric Solids	1						
	W a t e r Reactive	1	2	3				
	Corrosive to Metals	1						
	O x i d i z i n g Liquids		2	3				
	O x i d i s i n g Solids	1	2	3				
	Organic Peroxides	А	В	С	D	Ε	F	G

С	lassifications			Cla	sses			
	Acute toxicity	1	2	3	4	5		
	Skin corrosion/Irritatio n	1	1B	1C	2	3		
	Serious eye damage/ Irritation	1	2A	2B				
	Respiratory / Skin sensitization	Respir atory 1A	Respir atory 1B	Skin 1A	Skin 1B			
Toxicit y	Germ cell mutagenicity	1A	1B	2				
	Carcinogenicity	1A	1B	2				
	Reproductive toxicant	1A	1B	2	Additi on: lactat ion			
	STOT-single exposure	1	2	3				
	STOT-repeated exposure	1	2					
	Aspiration	1	2					
Eco- toxicit	Aquatic hazard	Acute1	Acute2	Acut e3	Chron ic1	Chr onic 2	Chr onic 3	Chr onic 4
У	Hazardous to the Ozone layer	1						



Decree Order 591

Decree Order 591: Regulations on Safe Management of Hazardous Chemicals

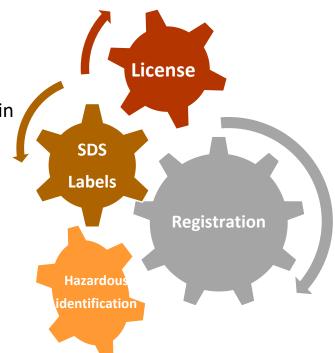
Issued by State Council, PRC, several ministries involved; Entry into force: 1 Dec 2011.

Requiring <u>hazardous identifications</u> for chemicals with unknown properties;

2 Implementing <u>a licensing system</u> for hazardous chemicals in the Catalog;

Requiring <u>hazardous chemicals registration</u>;

4 Requiring mandatory **China GHS SDS and labeling**;





Hazardous Identification

SAWS Order 60-Measures for the Administration of Identification and Classification of Physical Hazards of Chemicals

What kind of chemicals should be identified?

- Product Contains one and above hazardous components which include in Catalog, while physical-chem hazard property of whole product is unclear;
- Not any components included in Catalog, but physiochemical hazard property of whole product is unclear;
- Product used for R&D purpose with volume more than 1 ton per year while physical-chem hazard property of whole product is unclear.



Licensing Requirement

Scope: Products in the Catalogue of Hazardous Chemicals (70% principle applied)



Manufacture
Manufacture
hazardous chemicals



Use hazardous chemicals to manufacture

Use



Operation
Import, wholesale,
Warehouse storage



Transportation
Transport hazardous chemicals by road

SAWS Order 41th: Manufacture License, Effective from 2011.12.01 SAWS Order 57th:
Safe Use License,
Effective from 2013.5.1

SAWS order 55th:

Operating license, Effective from 2012.9.1

Administrative measures for the safe transport of dangerous goods by road, Effective from 2011.12.1



Hazardous Chemical Registration

SAWS Order 53-Measures for the administration of registration of hazardous chemicals in China

S	CO	p	e

- Catalog of Hazardous Chemicals
- Chemicals with Hazardous Classifications
- Chemicals that are identified as hazardous chemicals.

Domestic 24h
Emergency Number

Mandatory!

GHS SDS/Label

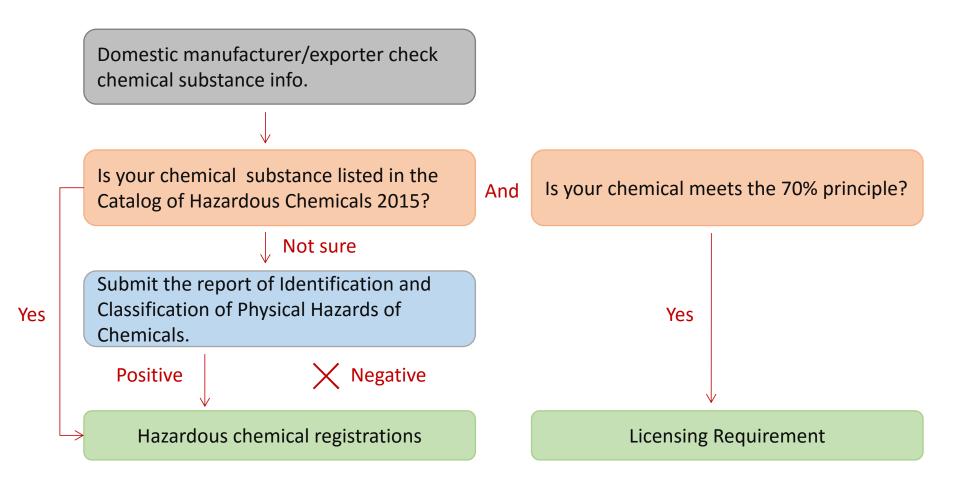
Mandatory!

Responsible authority

 National Registration Centre of Chemicals(NRCC) of SAWS(SAWS is now part of MEM)



Advice from CIRS





Q&A Session

Following our event, please always click

http://www.cirs-reach.com/news-and-articles/2020-CIRS-Training-Courses-Global-GHS.html

to find further updates

Contact Email: service@cirs-reach.com

For our Consultation

Next Webinar: Japan GHS features and local regulations

Time & Date: (GMT+1) 15:00, July 29th

Registration still Available



