

The Globally Harmonized System (GHS)

Health hazards (10 hazard classes)

Health hazard class								
	Code	Category	Code	Category	Code	Category	Code	Category
3.1			Acute Tox.	1, 2, 3	Acute Tox.	4		
3.2	Skin Corr.	1A, 1B, 1C			Skin Irrit.	2		
3.3	Eye Dam.	1			Eye Irrit.	2		
3.4					Skin Sens.	1, 1A, 1B	Resp. Sens.	1
3.5							Muta.	1A/1B, 2
3.6							Carc.	1A/1B, 2
3.7							Repr.	1A/1B, 2
3.8					STOT SE	3	STOT SE	1, 2
3.9							STOT RE	1, 2
3.10							Asp. Tox.	1

Simplified GHS labelling for laboratories

Health hazards H-code H3xx, acute toxicity cat. 1-3

 Danger to life	 Toxic	Contact with water or acids liberates toxic gas
☐ if inhaled ☐ in contact with skin ☐ if swallowed	☐ Bei Einatmen ☐ Bei Hautkontakt ☐ Bei Verschlucken	
Lebensgefahr	Giftig	Entwickelt giftige Gase mit Wasser/ Säure
Acute Tox. 1 (inhalation); H330	Acute Tox. 2/ 3 (inhalation); H330, H331	Water-react. 1; H260, EUH029
Acute Tox. 1 (dermal); H310	Acute Tox. 2/ 3 (dermal); H310, H311	Water-react. 2; H261, EUH029
Acute Tox. 1, (oral); H300	Acute Tox. 2/ 3 (oral); H300, H301	Water-react. 3; H262, EUH028
		Acid-react. 1/ 2; EUH032/ EUH031

Simplified GHS labelling for laboratories

Health hazards H3xx, CMR substances



- ☐ if inhaled
- ☐ in contact with skin
- ☐ if swallowed



- ☐ Bei Einatmen
- ☐ Bei Hautkontakt
- ☐ Bei Verschlucken

No GHS
symbol

	CMR-Stoff Kat. 1	CMR-Stoff Kat. 2	
Germ cell M utagenicity	Muta. 1A/ 1B; H340	Muta. 2; H341	
Cancerogenicity	Carc. 1A/ 1B; H350	Carc. 2; H351	
Reproductive toxicity	Repr. 1A/ 1B; H360	Repr. 2; H361	Lact.; H362 (effect on or via lactation)

Simplified GHS labelling in the laboratory

Damage to organs

Single Target Organ Toxicity (STOT)

- Non-lethal toxicity

☐	if inhaled
☐	in contact with skin
☐	if swallowed

☐	Bei Einatmen
☐	Bei Hautkontakt
☐	Bei Verschlucken



Schädigt Organe



**Kann Organe
schädigen**

Single Target Organ Toxicity (STOT)	Cat. 1	Cat. 2
Single Exposure (SE)	H370	H371
Repeated Exposure (RE)	H372	H373

Simplified GHS labelling for laboratories

Aspiration Toxicity, Respiratory Sensitization



Aspiration
dangerous to life

**Aspiration
lebensgefährlich**

Asp. Tox. 1; H304



Allergenic if inhaled

**Allergisierend bei
Einatmen**

Resp. Sens. 1; H334

Simplified GHS labelling for laboratories

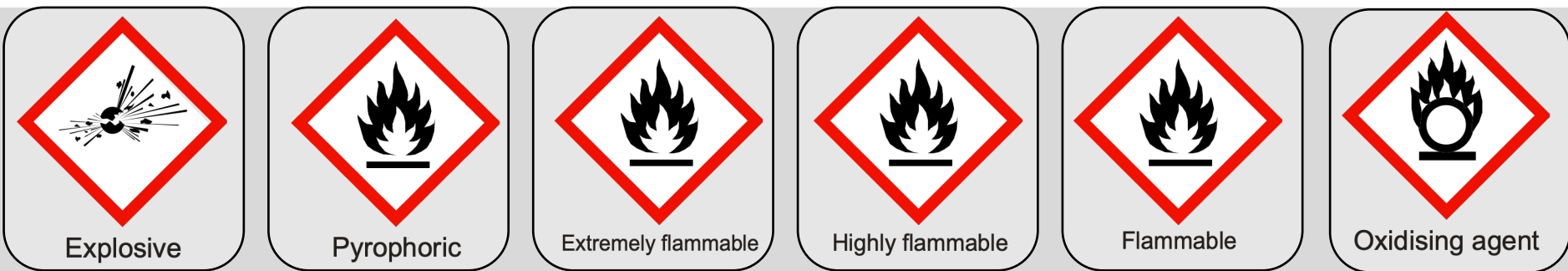
Skin Corr., Skin Sens., Skin Irrit., Acute Tox. 4, STOT SE 3

 Corrosive to skin/ metals	 Allergenic in contact with skin	 Irritant	 Harmful to health	 Narcotic
Ätzend / Korrosiv	Allergisierend bei Hautkontakt	Reizend	Gesundheitsschädlich	Betäubend
Met. Corr. 1; H290	Skin Sens. 1; H317	Skin Irrit. 2; H315	Acute Tox. 4 (inhalation); H332	STOT SE 3; H336
Skin Corr. 1A/ 1B/ 1C; H314		Eye Irrit. 2; H319	Acute Tox. 4 (dermal); H312	
Eye Dam. 1; H318		STOT SE 3; H335	Acute Tox. 4 (oral); H302	

Physical Hazards (16 classes)	Code  Cat.		Code  Cat.		Code  Cat.		Code  Cat.		Code  Cat.	
	Code	Cat.	Code	Cat.	Code	Cat.	Code	Cat.	Code	Cat.
2.1	Unst. Expl.									
	Expl.	1.1, 1.2, 1.3, 1.4								
2.2			Flam. Gas	1						
			Chem. Unst. Gas	A						
2.3			Aerosol	1, 2						
2.4					Ox. Gas	1				
2.5							Press. Gas			
2.6			Flam. Liq.	1, 2, 3						
2.7			Flam. Sol.	1, 2						
2.8	Self-react.	A, B	Self-react.	C, D, E, F						
2.9			Pyr. Liq.	1						
2.10			Pyr. Sol.	1						
2.11			Self-heat.	1, 2						
2.12			Water-react.	1, 2, 3						
2.13					Ox. Liq.	1, 2, 3				
2.14					Ox. Sol.	1, 2, 3				
2.15	Org. Perox.	A, B	Org. Perox.	B, C, D, E, F						
2.16									Met. Corr.	1

Simplified GHS labelling in laboratories

Physical hazards H-code H2xx



Explosiv	Self igniting	Extrem entzündbar	Leicht entzündbar	Entzündbar	Oxidationsmittel
Unst. Expl.; H200	Pyr. Liq. 1; H250	Flam. Gas 1; H220	Flam. Gas 2; H220	Flam. Gas; H221	Ox. Gas 1; H270
Expl. 1.1; H201	Pyr. Sol. 1; H250	Flam. Liq. 1; H224	Aerosol 1; 222	Aerosol 2; H223	Ox. Liq. 1+2; H271, H272
Expl. 1.2; H202			Flam. Liq. 2; H225	Flam. Liq. 3; H226	Ox. Liq. 3; H272
Expl. 1.3; H203			Flam. Sol. 1; H228	Flam. Sol. 2; H228	Ox. Sol. 1+2; H271, H272
Expl. 1.4; H204					Ox. Sol. 3; H271

Additional useful chemical hazard labels provided

II^b

German		English
Im trockenen Zustand explosiv		Explosive when dry
Entwickelt giftige Gase mit Wasser/ Säure		Evolves toxic gases with water/acid
Ungeprüfter Forschungsstoff		Untested research substance
Kann gefährlich altern		Can age dangerously
Reagiert heftig mit Wasser		Reacts violently in contact with water

Simplified GHS labelling in laboratories

Examples

Ethanol denat. (70%)

CAS No.: 64-17-5
Company: Aldrich
Art.-no.: 124632



Leicht entzündbar



Reizend

☐	Bei Einatmen
☒	Bei Hautkontakt
☐	Bei Verschlucken

Contact name: Dr. Strange, Strange Lab
Fill date: 3.1.2024

Formaldehyde (20%)

CAS No.: 50-00-0
Company: Aldrich
Art.-no.: 606758



Giftig



CMR-Stoff
Kat. 2

☒	Bei Einatmen
☐	Bei Hautkontakt
☐	Bei Verschlucken

Contact name: Dr. Strange, Strange Lab
Fill date: 3.1.2024

Methanol, ACS reagent, ≥99.8%

CAS No.: 67-56-1
Company: Aldrich
Art.no.: 179337



Leicht
entzündbar



Giftig



Schädigt
Organe

☒	Bei Einatmen
☒	Bei Hautkontakt
☒	Bei Verschlucken

Contact name: Dr. Strange, Strange Lab
Fill date: 3.1.2024

Simplified GHS labelling in laboratories

Examples

Xylenes, isomeric mixture

Company: Supelco
Art.-no.: 108633



Entzündbar



Ätzend/
Korrosiv



Kann Organe
schädigen



Gesundheits-
schädlich

Contact name: Dr. Strange, Strange Lab
Fill date: 3.1.2024

ChloroformACS reagent, ≥99.8%

CAS No.: 67-66-3
Company: Aldrich
Art.-no.: 650498



Giftig



Schädigt Organe



CMR-Stoff
Kat. 2



Betäubend

Contact name: Dr. Strange, Strange Lab
Fill date: 3.1.2024

The Globally Harmonized System (GHS)

GHS Precedence rules for pictograms

Precedence for GHS pictograms

if		appears		Shall not appear.
if		appears		Shall not appear for skin or eye irritation
if		Appears for respiratory sensitization		Shall not appear for skin sensitization or skin and eye irritation
Max. 4 Pictograms				