

# CHEMICAL INFORMATION

Pictogram	Description of Danger	UN Class	Category	Label Elements
<b>Environmental Hazards</b>				
	Hazardous to the aquatic environment acute	n/a	1	H400, H410
	Hazardous to the aquatic environment chronic			
	Hazardous to the aquatic environment acute	n/a	2	H411
<b>Physical Hazards</b>				
	Oxidising gases	5.1	1, 2, 3	H270,
	Oxidising liquids			H271,
	Oxidising solids			H272
	Flammable gases	2	1	H220,
	Flammable aerosols			H222,
	Flammable liquids			H224
	Flammable liquids	4.1, 3	1, 2	H225,
	Flammable solids			H228
	Flammable aerosols	2	2, 3	H223,
	Flammable liquids			H226
	Organic peroxides	5.2	B, C, E, F	H241, H242
	Pyrophoric liquids	1	1	H250
	Pyrophoric solids			

Pictogram	Description of Danger	UN Class	Category	Label Elements	
	Substances, mixtures which in contact with water emit flammable gases	1	1, 2, 3	H260, H261	
	Self-reactive substances, mixtures	4.1	B, C, D, E, F	H241, H242, H251, H252	
	Self-heating substances, mixtures	4.1	1, 2	H241, H242, H251, H252	
<b>Health Hazards</b>					
	Germ cell mutagenicity	n/a	1, 1A, 1B, 2	H341, H351, H361, H371, H373	
	Carcinogenicity				
	Reproductive toxicity				
	STOT*** single exposure				
	STOT*** repeated exposure				
	Respiratory sensitisation	n/a	1	H334, H304	
	Aspiration hazard				
	Acute toxicity category 4 • oral • dental • inhalation	6.1	4	H302, H312, H332	
	Skin irritation	6.1	2, 3	H315, H319, H317, H335	
	Eye irritation				
	STOT*** after single exposure				
	Respiratory tract irritation	n/a	n/a	H336	
	Narcotic Effects				
		Skin corrosion	8	1A, 1B, 1C	H314
		Serious eye damage	n/a	1	H318
		Corrosive to metals	8	1	H290

## CHEMICAL REGULATIONS

### CLP

On the 20th January 2009 the CLP element of REACH, European Regulation (EC) No 1272/2008 came into force concerning Classification, Labelling and Packaging (CLP) of chemical substances. It is based upon UN Globally Harmonized System of classification and labelling of Chemicals (GHS) and ensure worldwide uniformity.

### ADR & LQ

European agreement concerning the international carriage of Dangerous Goods by road (ADR). If a substance is classified as hazardous for transport it will be assigned a UN number, this dictates the regulations that have to be applied when the substance is transported. Each UN number is assigned a limited quantity (LQ) which indicates the maximum pack size of a substance that can be transported without special restrictions. If the LQ is zero, or the pack size exceeds the LQ, then the substance must be transported by a specially trained and licensed courier.

### Permits/EUDs (End User Declarations)

A permit is required by law to purchase certain chemicals. You only require a permit if purchasing more than 5 litres per annum. EUDs are also required for Drug Precursor Chemicals. Please note ESPO will only supply chemicals to educational establishments.

### Delivery Surcharge

Please note due to the nature of these products it maybe necessary for ESPO to charge a carriage surcharge for the delivery of some of the most hazardous chemicals, if special transportation is required.

### MSDS

Material Safety Data Sheets (MSDS) provide information on chemicals that help the users of those chemicals to make their own risk assessments. They describe the hazards the chemical presents, and give information on handling, storage and emergency measures in case of an accident. See [espcatalogue.org](http://espcatalogue.org) for details of data sheets.

### Storage

Please ensure all chemicals are stored away from pupils and are in the appropriate containers. Storage areas should be dry and well ventilated with a consistent temperature.

The information given is for guidance only, it is the individual Educational establishments responsibly to ensure safe use and handling of these chemicals.

## H CODES

### Physical Hazard

H200	Unstable explosive
H201	Explosive; mass explosive hazard
H202	Explosive; severe projection hazard
H203	Explosive; fire, blast or projection hazard
H204	Fire or projection hazard
H205	May mass explode in fire
H220	Extremely flammable gas
H221	Flammable gas
H222	Extremely flammable aerosol
H223	Flammable aerosol
H224	Extremely flammable liquid and vapour
H225	Highly flammable liquid and vapour
H226	Flammable liquid and vapour
H227	Combustible liquid
H228	Flammable solid
H240	Heating may cause an explosion
H241	Heating may cause a fire or explosion
H242	Heating may cause a fire
H250	Catches fire spontaneously if exposed to air
H251	Self-heating; may catch fire
H252	Self-heating; in large quantities; may catch fire
H260	In contact with water releases flammable gases which may ignite spontaneously
H261	In contact with water releases flammable gas
H270	May cause or intensify fire; oxidizer
H271	May cause fire or explosion; strong oxidizer
H272	May intensify fire; oxidizer
H280	Contains gas under pressure; may explode if heated
H281	Contains refrigerated gas; may cause cryogenic burns or injury
H290	May be corrosive to metals

### Health Hazard

H300	Fatal if swallowed
H301	Toxic if swallowed
H302	Harmful if swallowed
H303	May be harmful if swallowed
H304	May be fatal if swallowed and enters airways
H305	May be harmful if swallowed and enters airways
H310	Fatal in contact with skin
H311	Toxic in contact with skin
H312	Harmful in contact with skin
H313	May be harmful in contact with skin
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H316	Causes mild skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H319	Causes serious eye irritation
H320	Causes eye irritation

H300	Fatal if inhaled
H331	Toxic if inhaled
H332	Harmful if inhaled
H333	May be harmful if inhaled
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness
H340	May cause genetic defects
H341	Suspected of causing genetic defects
H350	May cause cancer
H351	Suspected of causing cancer
H360, H360Df	May damage fertility or the unborn child
H361	Suspected of damaging fertility or the unborn child
H361F	Suspected of damaging fertility
H362	May cause harm to breast-fed children
H370	Causes damage to organs
H371	May cause damage to organs
H372	Causes damage to organs through prolonged or repeated exposure
H373	May cause damage to organs through prolonged or repeated exposure

### Environmental Health

H400	Very toxic to aquatic life
H401	Toxic to aquatic life
H402	Harmful to aquatic life
H410	Very toxic to aquatic life with long lasting effects
H411	Toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects
H413	May cause long lasting harmful effects to aquatic life

### EU Supplementary Hazard Statements List

EUH001	Explosive when dry
EUH006	Explosive with or without contact with air.
EUH014	Reacts violently with water
EUH018	In use, may form flammable/explosive vapour-air mixture.
EUH019	May form explosive peroxides.
EUH044	Risk of explosion if heated under confinement.
EUH029	Contact with water liberates toxic gas
EUH031	Contact with acids liberates toxic gas
EUH032	Contact with acids liberates very toxic gas
EUH066	Repeated exposure may cause skin dryness or cracking
EUH070	Toxic by eye contact.
EUH071	Corrosive to the respiratory tract
EUH059	Hazardous to the ozone layer
EUH201	Contains lead. Should not be used on surfaces liable to be chewed or sucked by children
EUH201A	Warning! Contains lead
EUH202	Cyanoacrylate. Danger. Bonds skin and eyes in seconds. Keep out of the reach of children

EUH203	Contains chromium (VI). May produce an allergic reaction.	P283	Wear fire/ flame resistant/retardant clothing.	P390	Absorb spillage to prevent material damage.
EUH204	Contains isocyanates. May produce an allergic reaction.	P284	Wear respiratory protection.	P391	Collect spillage.
EUH205	Contains epoxy constituents. May produce an allergic reaction.	P285	In case of inadequate ventilation wear respiratory protection.	P301+P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
EUH206	Warning! Do not use together with other products. May release dangerous gases (chlorine)	P231+P232	Handle under inert gas. Protect from moisture.	P301+P312	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
EUH207	Warning! Contains cadmium. Dangerous fumes are formed during use. See information supplied by the manufacturer. Comply with the safety instructions.	P235+P240	Keep cool. Protect from sunlight	P301+P330 +P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
EUH208	Contains (name of sensitising substance). May produce an allergic reaction.	P301	IF SWALLOWED:	P302+P334	IF ON SKIN: Immerse in cool water/wrap in wet bandages.
EUH209	Can become highly flammable in use.	P302	IF ON SKIN:	P302+P350	IF ON SKIN: Gently wash with plenty of soap and water.
EUH209A	Can become flammable in use.	P303	IF ON SKIN (or hair):	P302+P352	Wash with plenty of soap and water. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
EUH210	Safety data sheet available on request.	P304	IF INHALED:	P303+P361 +P353	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
EUH401	To avoid risks to human health and the environment, comply with the instructions for use.	P305	IF IN EYES:	P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
<b>P CODES</b>		P306	IF ON CLOTHING:	P305+P351 +P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF ON CLOTHING: rinse immediately contaminated clothing and skin with plenty of water before removing clothes.
<b>General</b>		<b>Response</b>		P306+P360	IF ON CLOTHING: rinse immediately contaminated clothing and skin with plenty of water before removing clothes.
P101	If medical advice is needed, have product container or label at hand.	P310	Immediately call a POISON CENTER or doctor/physician.	P307+P311	IF exposed: Call a POISON CENTER or doctor/physician.
P102	Keep out of reach of children.	P311	Call a POISON CENTER or doctor/physician.	P308+P313	IF exposed or concerned: Get medical advice/attention.
P103	Read label before use.	P312	Call a POISON CENTER or doctor/physician if you feel unwell.	P309+P311	IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician.
<b>Prevention</b>		P313	Get medical advice/attention.	P332+P313	IF skin irritation occurs: Get medical advice/attention.
P201	Obtain special instructions before use.	P314	Get medical advice/attention if you feel unwell.	P333+P313	IF skin irritation or rash occurs: Get medical advice/attention.
P202	Do not handle until all safety precautions have been read and understood.	P315	Get immediate medical advice/attention. Specific treatment is urgent (see ... on this label).	P335+P334	Brush off loose particles from skin. Immerse in cool water/wrap in wet bandages.
P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.	P320	Specific treatment is urgent (see ... on this label).	P337+P313	If eye irritation persists: Get medical advice/attention.
P211	Do not spray on an open flame or other ignition source.	P321	Specific treatment (see ... on this label).	P342+P311	If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
P220	Keep/Store away from clothing/.../combustible materials.	P322	Specific measures (see ... on this label).	P370+P376	In case of fire: Stop leak if safe to do so.
P221	Take any precaution to avoid mixing with combustibles...	P330	Rinse mouth.	P370+P378	In case of fire: Use ... for extinction.
P222	Do not allow contact with air.	P331	Do NOT induce vomiting.	P370+P380	In case of fire: Evacuate area.
P223	Keep away from any possible contact with water, because of violent reaction and possible flash fire.	P332	If skin irritation occurs:	P370+P380 +P375	In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion.
P230	Keep wetted with...	P333	If skin irritation or rash occurs:	P371+P380 +P375	In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.
P231	Handle under inert gas.	P334	Immerse in cool water/wrap in wet bandages.	<b>Storage</b>	
P232	Protect from moisture.	P335	Brush off loose particles from skin.	P401	Store ...
P233	Keep container tightly closed.	P336	Thaw frosted parts with lukewarm water. Do no rub affected area.	P402	Store in a dry place.
P234	Keep only in original container.	P337	If eye irritation persists:	P403	Store in a well-ventilated place.
P235	Keep cool.	P338	Remove contact lenses, if present and easy to do. Continue rinsing.	P404	Store in a closed container.
P240	Ground/bond container and receiving equipment.	P340	Remove victim to fresh air and keep at rest in a position comfortable for breathing.	P405	Store locked up.
P241	Use explosion-proof electrical/ventilating/lighting/.../equipment.	P341	If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.	P406	Store in corrosive resistant/... container with a resistant inner liner.
P242	Use only non-sparking tools.	P342	If experiencing respiratory symptoms:	P407	Maintain air gap between stacks/pallets.
P243	Take precautionary measures against static discharge.	P343	Gently wash with plenty of soap and water.	P410	Protect from sunlight.
P244	Keep reduction valves free from grease and oil.	P344	Rinse cautiously with water for several minutes.	P411	Store at temperatures not exceeding... °C/...°F.
P250	Do not subject to grinding/shock/.../friction.	P345	Wash with plenty of soap and water.	P412	Do not expose to temperatures exceeding 50°C/122°F.
P251	Pressurized container: Do not pierce or burn, even after use.	P346	Rinse skin with water/shower.	P413	Store bulk masses greater than ... kg/... lbs at temperatures not exceeding ... °C/...°F.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.	P347	Rinse immediately contaminated clothing and skin with plenty of water before removing clothes.	P420	Store away from other materials.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.	P348	Remove/Take off immediately all contaminated clothing.	P422	Store contents under...
P262	Do not get in eyes, on skin, or on clothing.	P349	Take off contaminated clothing and wash before reuse.	P402+P404	Store in a dry place. Store in a closed container.
P263	Avoid contact during pregnancy/while nursing.	P350	Wash contaminated clothing before reuse.	P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P264	Wash... thoroughly after handling.	P351	In case of fire:	P403+P235	Store in a well-ventilated place. Keep cool.
P270	Do not eat, drink or smoke when using this product.	P352	In case of major fire and large quantities:	P410+P403	Protect from sunlight. Store in a well-ventilated place.
P271	Use only outdoors or in a well-ventilated area.	P353	Explosion risk in case of fire.	P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50°C
P272	Contaminated work clothing should not be allowed out of the workplace.	P354	DO NOT fight fire when fire reaches explosives.	P411+P235	Store at temperatures not exceeding..Keep cool.
P273	Avoid release to the environment.	P355	Fight fire with normal precautions from a reasonable distance.	P501	Dispose of contents/container to...
P280	Wear protective gloves/protective clothing/eye protection/face protection.	P356	Fight fire remotely due to the risk of explosion.		
P281	Use personal protective equipment as required.	P357	Stop leak if safe to do so.		
P282	Wear cold insulating gloves/face shield/eye protection.	P358	Leaking gas fire: Do not extinguish, unless leak can be stopped safely.		
		P359	Use ... for extinction.		
		P380	Evacuate area.		
		P381	Eliminate all ignition sources if safe to do so.		