
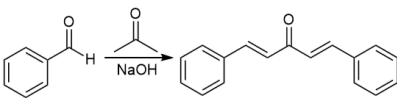






COSHH Assessment Form	COSHH ref.no		RA_13021				
	Date		05/11/2024				
	Review date						
	Assessor name		Vittorio Caprio (55061280)				
Activity name			Location				
Outreach Lab Taster Activity							
Intended activities/ reaction scheme							
Aldol condensation of acetone with benzaldehyde							
							
Linked assessments							
Chemicals used							
Name of material	Concentration	Quantity	CAS number		Hazard classifications	Hazard codes and statements	SDS
Benzaldehyde	99.5	100 mL	100-52-7	 	Flammable liquids (Category 4) Acute toxicity, Oral (Category 4) Acute toxicity	H227 Combustible liquid H302 Harmful if swallowed H312 Harmful in contact with skin H315 Causes skin irritation H317 May cause an allergic	<a href="#">sd</a> <a href="#">s-</a> <a href="#">en</a> <a href="#">sd</a> <a href="#">s</a>




y,  
Dermal  
al  
(Category  
4)  
Skin  
corrosion/irritation  
(Category  
2)  
Skin  
sensitisation  
(Category  
1)  
Hazardous  
to the aquatic  
environment  
, short-term  
(acute),  
(Category  
2)  
Respiratory  
sensitisation  
(Category  
1)

H334

H401

skin  
reaction  
May  
cause  
allergy or  
asthma  
symptoms or  
breathing  
difficulties if  
inhaled  
Toxic to  
aquatic  
life

Acetone	5.0L	67-64-1	 	Flammable liquids (Category 2) Specific target organ toxicity - single exposure (Category 3, H336)	H225  H336  EUH066	Highly flammable liquid and vapour May cause drowsiness or dizziness Repeated exposure may cause skin dryness or	sd s-en
---------	------	---------	--	---	--------------------------------	--	------------

				cracki ng		
Ethyl Alcohol, pure	1 L	64-17-5	 	Flam mable liquids (Cate gory 2) Seriou s eye dama ge/ey e irritati on (Cate gory 2)	H225e liquid and vapour Causes serious eye irritation  H319	sd s- en sd s- en
Sodium hydroxide-pellets	50 0 g	1310-73-2		Corro sive to Metals (Cate gory 1)	May be H290corrosive to metals	sd s- en
What are the hazards			Who may be harmed and how			
Corrosive/flammable reagents,			Students visitors participating in experiment and staff/technicians supervising - burns from contact with corrosive chemicals or contact with hot surface. Cuts from broken glassware			
What are you already doing to control the risks?						
Elimination	Can the substance(s) be eliminated altogether? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
Substitution	Can the substance(s) be substituted from something safer <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
Engineering controls	Work on small scale. Wear full PPE					
Administrative controls	Follow detailed lab instructions closely and consult risk assessment/COSHH provided.					
Personal Protective Equipment	nitrile gloves, lab coat and safety eye wear					
Do you need to do anything else to control the risk?						
Actions Identified to Control the Risk Further		By who?	By when?	Done		



### Check on control measures

<b>Is health surveillance required?</b>	Can the substance be eliminated alt... No <hr/> If yes contact H&S Team	<b>Training required?</b>	Is training required? Yes <hr/> Yes/No (Insert/append if yes) Detailed demonstration and discussion held by supervising member of staff at beginning of session.
<b>Disposal</b>	Solid produced will be collected and disposed of in suitable solid waste container. Filtrates and other liquids disposed of in organic waste.		
<b>Emergency procedures</b>		<b>Cautionary notes</b>	
What to do in the event of a spillage or fire In event of fire alarm - leave building via nearest safe exit guided by member of staff. Spillages of sodium hydroxide neutralised with dilute hydrochloric acid. Organic liquid spill mopped up with towel and towel left to vent in fume hood.		Benzaldehyde: - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. - Avoid breathing dust/fume/gas/mist/vapours/spray. - Do not get in eyes, on skin, or on clothing. - Wash ... thoroughly after handling. - Do not eat, drink or smoke when using this product. - Use only outdoors or in a well-ventilated area. - Contaminated work clothing should not be allowed out of the workplace. - Avoid release to the environment. - Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/... - In case of inadequate ventilation wear respiratory protection. - IF SWALLOWED: Call a POISON CENTRE/doctor/... if you feel unwell. - P301 + P312 + P330 - P301+P312+P330 - IF ON SKIN: Wash with plenty of water/... - P302 + P352 + P312 - P302+P352+P312 - IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. - P304+P340 - P305+P351+P338	

- Call a POISON CENTRE/doctor/... if you feel unwell.
- Specific measures (see ... on this label).
- Rinse mouth.
- If skin irritation occurs: Get medical advice/attention.
- If skin irritation or rash occurs: Get medical advice/attention.
- If experiencing respiratory symptoms: Call a POISON CENTER/doctor/...
- Take off contaminated clothing.
- In case of fire: Use ... to extinguish.
- P370+P378
- Store in a well-ventilated place. Keep cool.
- P403+P233
- Dispose of contents/container to ...

#### Acetone:

- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/...
- IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
- IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- Call a POISON CENTRE/doctor/... if you feel unwell.
- If eye irritation persists: Get medical advice/attention.

#### Ethyl Alcohol, pure:

- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/...
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- If eye irritation persists: Get medical advice/attention.
- Store in a well-ventilated place. Keep cool.

#### Sodium hydroxide-pellets:

- Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/...
- IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- IF ON SKIN (or hair): Take off immediately all



contaminated clothing. Rinse skin with water [or shower].

- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- Immediately call a POISON CENTER/doctor/...

What to do if person comes into contact with chemical (i.e. first aid)

### Attachments

### Attachments

<b>Assessor name/signature</b>	Vittorio Caprio (55061280)	05/11/2024 _____	
<b>Validated by name/signature</b>	Vittorio Caprio (55061280)	 05/11/2024 _____	
<b>H&amp;S Co-ordinator name/ signature</b>	Thomas Britten (55134239),  Stuart Langley (55117655) _____	 05/11/2024 _____	