



AU Chemicals Network

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What is Kiros?

- AU's database for chemicals.
- Contains APB's and tox data.
- Administration of the groups chemistry.
- Kiros admin and Kiros.dk

What to register?

- Purchased chemicals that are in use in the group.
- Own mixtures.
- Own synthesized products.
- Exempted: Substances and mixtures that are not hazardous (not classified or max 1% hazardous). But you can register them anyway.

Why Kiros?

- Centralisered knowledge of classification of chemicals.
- Basis for uniform handling of the safety work.
- Classification of proprietary mixtures.
- Exchange of chemicals across AU.

Use of Kiros

- Log-in to Kiros.
- Search of chemicals in Kiros.
- Add chemicals to your group.
- Notify Kiros with new chemicals.
- Labels, lists, "standard addition to MSDS"
- New in Kiros
- Chemicals legislation

Log-in to Kiros

• Kiros.dk



Log-in to Kiros

• Choose user type

KIROS	Login - Information - Help -
_	L Navigator (Group Edition)
	Stock (Group Edition)
	Login with AU ID
	✓ Guidance for AU ID login
	TH CH. IT TH CH. H
	Search
	Advanced search Help About

Log-in to Kiros

• Log in (contact the groups administrator)

Started 🕀 41467_2020_19468_M 🕥 Tricks With Combo Bo 💮 Send oplysninger til L ᄊ Kemikaliekonsulent, H м D Please choose the group you want to login to.
AABOGADE Biocatalysis BIO_MP ChemEng
○ A ⊶ https://kiros.dk/Web/group?action=index&old_action=navigator ting Started ⊕ 41467_2020_19468_M W Tricks With Combo Bo ⊕ Send oplysninger til L ▲ Kemikaliekonsul
Information - Help -
Navigator Login нв Password:

• Simple search in Kiros...

_		
	acetone	
	acetone Search Advanced search Help About	
	acetone Search Advanced search Help About Kiros is indexing 28,051 chemicals	
	acetone Advanced search Help About Kiros is indexing 28,051 chemicals	

•first in own group..



•then in all Kiros..

KIROS HB - Guidances - Inform	ation	
KRO5	Search within Group	Advanced search Help About
Print		
GHS02 GHS07 Key: 4	105 CAS-no.: 666-52-4 H-code(s)/statement(s): EUH (066-H225-H319-H336
GHS02 GHS07 Key: 5	536 CAS-no.: 666-52-4 H-code(s)/statement(s): H225-	H319-H336-
3 Acetone (teknisk brug) Danger GHS02 GHS07 CHS07 Key: 3	34889 CAS-no.: 67-64-1 H-code(s)/statement(s): EUH	066-H225-H319-H336

....click leads to "the Navigator page"

KIROS HB - Guidar	nces - Inforn	nation + Help + Carsten Pedersen
	Chloroa	cetone
6 1	Identification:	٥
2	Key	714
11	Name	Chloroacetone
10 T	Picture	CICH
	Synonyms	Chloro-2-propanone;1-Chloro-2-propanone;1-Chloroacetone; 2-Propanone, 1-chloro-;2-Propanone, chloro- (6Cl); Acetonyl chloride;alpha- Chloroacetone;Chloro-2-propanone;Chloroacetone;Chloromethyl methyl ketone;Chloropropanone;Methyl chloromethyl ketone;Monochloroacetone;NSC 30673 MDL number: MFCD00000936;PubChem Substance ID: 24850211
	CAS-No.	78-95-5
6 10-	EC-No.	201-161-1
	Index-No.	
H N	Molecule formula	C3-H5-CI-O
01	Molecule weight	92.52
11		

•and at the bottom of the page you find which groups have registered this chemical, waste group and the safety data sheets..

Transport Information of	Dangerous Goods: 🖸	
	n an eile an	
Waste fraction		02.11
Fortum Waste fraction		В
UN Number		1695
ADR/RID class		6.1/PG 1
Special information		
	Y N	YN
Resources: D		
Literature references	SAL366B; SAXABF250; MI112113; HCS291; Sax 6, 676; BRN: 60	05369; Merck 14,2114;
Registered groups	Kemi109 Valdemar Juel Enemærke, Kemikalielageret Vibeke He	nriette Lauridsen , TS Bjarke Donslund
Manual	Chloroscotono DK 2020 pdf Chloroscotono LIK 2010 pdf	

Advanced search

Advanced search D			
Nicotine			
Find results with all names.			
Find results without any of the names.			
Кеу			
CAS-No.		GH\$ pictogram(s)	
H-code(s)/statement(s)		P-code(s)/statement(s)	
Show chemicals that are harmful to pre and breastfeeding (H/P).	egnant women		
Show chemicals that are polsonous		Type 1: Krav om opbevaring under lås Type 2: Krav om giftansvarlig Type 3: Pliot til anmeldelse af tveri (Lagerstvring)	
Show cancer-causing chemicals		······································	
Show chemicals that form peroxides			
H/P-source		Long-term effects	
Index-No.		EC-No.	
Product Type	Andre rengøringsmidler	•	
	Desinfektionsmiddel apparatur Entokemikalie		
	Gas		
	Gearolle Kemikalle		
	Laboratoriekit Motorolle		
	Oversigt Rengeringsmiddel til gulve		
In group 🖸			
When you search for group specific		Building	
Information, you can ONLY search In	All groups AABOGADE	A Denoing	
Joan own group.	AAGHF	Room	
	AAS	Cupboard	
	Adgang	Shelf	
	Aerosol AGRO1		
	AGR02	<i>•</i>	

Advanced search

Name			
Find results with at least one of the name	mes.		
Find results with all names.			
Find results without any of the names.			
Кеу			
CAS-No.			GHS pictogram(s)
H-code(s)/statement(s)	H300, H310, H330, H30	01, H311, I	P-code(s)/statement(s)
Show chemicals that are harmful to pr women and breastfeeding (H/P).	regnant 🥌		
Show chemicals that are poisonous	6	Type 1 Type 2 Type 3	: Krav om opbevaring under lås : Krav om giftansvarlig : Pligt til anmeldelse af tyveri (Lagerstyring
Show cancer-causing chemicals			
Show chemicals that form peroxides			

• Log in as notifier

📕 KIROS	Login -	Information -	Help -
	Login ✓ Stock Login ✓ Guida	ator (Group Edition (Group Edition) with AU ID ince for AU ID login	ו) ז

Search for chemicals in the group



• Then in all Kiros

I KIROS smf -	Groups - Admin - Guidances	✓ Information ✓ Help ✓ \\\	Victoria Birkedal			
1	K ROS	Sea	arch in Kiros	Nicotine	Search search Help About	1 Ca
1.21	Print				Select all: 🔲 🗡 Edit	selected
HT .	H Ch	121	Ch		Crs	
Ύ Ĥ	No chemicals found!					
10	Prøv og søg efter en kortere	streng af Nicotine				

.. And choose add

/ KIROS smf ≁	Groups × Admin × Guidances × Information × Help × Victoria Birkedal	
	Search within Group Nicotine Advanced search Help About Advanced search Help About	Search
	A Print	0
H	1 Nicotine Danger	Menu -
in the	GHS09 🚯 GHS06 🐼 Key: 26660 CAS-no.: 54-11-5 H-code(s)/statement(s): H300-H310-H330-H411	Add
°″ Ĥ	2 Nicotineamide adenine dinucleotide free acid	Menu -

....Adjust name, storage, quantity...

	Make changes in the group data for chemical Nicotine	
6 1	Local name	
	Nicotine	
H	Group comments:	
in the second		
HO		
HO		
	Container 🖸 #0	
	1 Add Cantainer Delete Cantainer	Consumption log-
1 Mar	1 • Add Container Name:	Consumption log:
1	1 v Add Container Name:	Consumption log: Forkrugatistorik
SE	1 < Add Container	Consumption log: Forbringshisterik Generate barcode
	1 Add Container Delete Container Name:	Consumption log: Fortrogalitaritie

• ...and press "Save".

and the second	e changes in the group date for channess <mark>Allocations</mark> Key: 2000	
Lea	d name	
	2004	
	p comments.	
	19	
	11.	
	ontainer @ #0	
	T A COMBRE LESS CONSIST	
	Finite State	
	cole: Generals becose	
e e e e e e e e e e e e e e e e e e e		
	exegue Procee nurree:	
-	uldrg.	
	397.	
	qboard	
	H	
s	*	
	an Dala.	
	ravi	
	NG V	
	ate of Purchase.	
	city data.	
	*	
	adhunne.	
	Lover Init for amount (email notification to group admin)	
	kg V	
	hemical Number.	
	- 102 H	
Tota	e Amount 1.00 other see that you've got the chemosi? No: () Yes: ()	
into a la companya de	emation til APB 🖸	

• Notice that you can generate a barcode/QR code for the container (temporarily out of order).

Neir drages in Ingage das Ig dawing Witting 66, 2000
Lool Inny
Refr
Croup commenta:
The Add Conserve Dates Order or Conserver
Sugar
BXEN
Carage Prescent output
Eulory .
Ram-
C _c bare
26
Lan Des
Date of Purphase
Logi da
C Lower Intil for endust (email notification to popo lotom)
Overal Vurder
Litele Amount 1.00
Information III APE D
a later a later a later

• Substance not in Kiros yet? Send it in!

Guidances - Inform	nation → Help → Vic	toria Birkedal				
<u>K</u> RO9	4	Search within Gr	pup	Magic mixture Advance	ed search Help About	Search
Print						0
the second			~ ~ ~			jn i
No chemicals found!						
Prøv og søg efter en kor If the chemical is not pa	tere streng af Magic mixture rt of the search result from I	e KIROS, you can submit your	chemical: Submit Magic	mixture to KIROS		
					The search	was done in 0.23 secs

• Fill in the registration formand press "Send"

smf → Groups → Admin →	Guidances + Information + Help + Victoria Birkedal
	Submit Magic mixture to KIROS
211	Name (*) It is ONLY a requirement to register chemicals that are IN USE. Please only register chemicals that are IN USE! Magic mixture
TH O	Synonyms
1	Fields marked with (*) must be filled in
	CAS-No.:(*)
	Fields marked with (*) must be filled in Supplier:(*)
	Fields marked with (*) must be filled in
< < <	Producer:(*) Fields marked with (*) must be filled in
JH O	C <mark>atalogue/Producer number:</mark> (*)

Guidance documents in Kiros

• Some practical info in the Kiros menu.

smf - Groups -	Admin -	Guidances 🗸 🛛 II	nformation 🗕	Help 🚽	Victoria Birkedal
		KIROS Users Guide			
1		Safety Data Sheet	ts - Chemical Safe	ety	
		Stock Managemer	nt		
1	-	Notat om de grønn	ne og blå APB i Ki	ros	
	. /	Kiros.dk Miniguide	(DK)		
	14	Kiros.dk Miniguide	(UK)		
. I "H	CH	AU Materials			
		ATEX_Aarhus_Uni	iversitet skema_1	_rev_7.pdf	
		ATEX_Aarhus_Uni	iversitet_skema_	1_rev_7.xls	3
		ATEX_Aarhus_Uni	iversitet_skema_2	2_rev_1.pd	f
		ATEX_Aarhus_Uni	iversitet_skema_2	2_rev_1.do	с
		Guidelines for form	n 1: "ATEX - regis	tration"	
		Guidelines for forn	n 2: "Workplace a	ssessmen	t and zone classification"
		Incompatible Cher	micals		
		Guidelines for wor	king with carcinog	genic subs	tances at University of Aarhus
1		Notes			
\sim	. /	Info vedr. APB for i	ikke dansktalende	medarbej	dere
	1.1	Info vedr. APB for i	ikke dansktalende	medarbej	dere
1.74	Ch	Description about	the Label Engine		

Guidance documents in Kiros

• Such as the difference between "blue" and "green" APB.

toluene Advance	
Image: Trint Image: Trint </td <td></td>	
I 2 Toluene Danger GHS02 GHS07 GHS08 Key: 27108 CAS-no.: 108-88-3 H-code(s)/statement(s): H225-H304-H315	
3 Toluene-4-sulfonohydrazide Danger GHS02 GHS07 Key: 4671 CAS-no.: 1576-35-8 H-code(s)/statement(s): H225-H302-H315 + H319 + H335 4 Toluono 48 (2000uo/ml mothanol) Danger	
GHS02 GHS08 GHS08 Key: 57503 CAS-no.: 2037-26-5; 67-56-1 H-code(s)/statement(s): H225-H	
GHS02 GHS07 GHS08 GHS08 Key: 1391 CAS-no.: 108-88-3 H-code(s)/statement(s): H225-H304-H315-H	
GHS02 GHS07 Key: 6054 CAS-no.: 2037-26-5 H-code(s)/statement(s): H225-H332	

Printing labels in Kiros

• Can be accessed in 2 ways in Kiros.



Printing labels in Kiros

• Large (x8) and small (x24) labels.

smf - Groups - Admin - Guidances - Information - He	lp → Victoria Birkedal	
P305 + P351 + P338 IF IN EYE	S: Rinse cautiously with water for several	minutes. Remove contact lense:
ڬ Labels engine — Mozilla Firefox —	C X tor/physician.	
♦ https://kiros.dk/Web/group?action=c	lefi ☆ ≡	
HO A	EU12	72-AU
Labels engine	10 pp	om / 25 mg/m3 (E)
l arge labels (J8165-25.99.1 x 67.7 mm x 8): •	E: Be	tyder at stoffet har en EF-græns
	GV20	11DK
1. 7356 Q 2. key		
3. key Q 4. key Q	AF12	25000
5. key Q 6. key Q - The second		
	IC Show t	he Labels Engine
Show disposal group:		
Start	w Advanced	
A		
Small Jabels (14773-10.63.5 x 33.9 mm x 24): D		
	hydrolaron	

The list of chemicals (notifier)

• Edit chemicals registered in your group.



The list of chemicals (html)

Detailed list

	/ KIROS	smf - Group	⊳s– Adm	nin - Gu	idances	 Information 	- He	elp - Vict	toria Birkedal	-		
	1	 Navigator (Gru Stock (Group Login with AU Guidance for Logout 	roup Edition) Edition) J ID AU ID login						K			
	H H	Chemical Risk A Search in the ch List all the chemic	Assesment nemicals fron cals in the gr	n: Departme roup (smf):	nt of Che	emistry, Aarhus Uni	versity		CH.	Ad	Ivanc	
	HO	Tab separated (: PDF List all the chemic	txt) cals in KIRO	S:						Kin	how	
4		HTML Tab separated (.	.txt)	A ht	tns://	/kiros dk/\W	eb/a	iroup?a	ction=de	Show	ad&type=r	lain&form
Ð	Import bookmarks 🔞 G	Setting Start	ted 💮	41467	2020	_19468_M	(D) g	Tricks W	ith Comb	o Bo	Send of	oplysninger
There Red c	e is 64 chemicals in smf olor indicates that the chemical isn	't toxological u	updated.				Oct	7, 2021, 5:	53:38 PM			
Key	Name	Container name	AS-No.	Building	Room	Cupboard	Shelf	Chemical Number	Date of Purchase	Expiry date	Batchnumme	Group comments:
7356	Acetic acid	64	4-19-7			Kemikalieskab						
535	Acetone p.a.	67	7-64-1	1592	125							
537	Acetonitrile	75	5-05-8	1592	125							
5469	Albumin, from bovine serum, lyophilized powder, essentially	90	048-46-8	1525	131	køleskab						

Default addition to MSDS

• ..in the menu under "Admin"

/ KIROS smf - Groups -	Admin - Guidances			
	Show/Edit addition to su	pplier manu	al for smf (For S&T brugere)	
1A	Show/Edit standard text Storeroom users Vedligehold brugere	s for manual	s for smf (For HEALTH brugere: SDS	5 => АРВ)
XX	Guidance for AU ID le Administration af kerr	ogin nikalier		
and 2 "		-		
Standard supplement til sikkerhedsdat	ablade, gældende for gruppe smf:		Default addition to supplier manual f	or groups smf:
Standard supplement til sikkerhedsdat Revideret den: 2021-09-14	ablade, gældende for gruppe smf:	8	Default addition to supplier manual f	or groups smf:
Standard supplement til sikkerhedsdat Revideret den: 2021-09-14 4. Førstehjælpsforanstaltninger:	ablade, gældende for gruppe smf.	8	Last updated: 2021-09-14 4. First aid precautions:	or groups smf:
Standard supplement til sikkerhedsdat Revideret den: 2021-09-14 4. Førstehjælpsforanstaltninger: Normal + B I U + F	ablade, gældende for gruppe smf: ■ := <i>I</i> x	8	Default addition to supplier manual f Last updated: 2021-09-14 4. First aid precautions: Normal ÷ B I <u>U</u> %	or groups smf. I≡ ≔ <i>I</i> x
Standard supplement til sikkerhedsdat Revideret den: 2021-09-14 4. Førstehjælpsforanstaltninger: Normal B I U B	ablade, gældende for gruppe smf. $\equiv :\equiv I_x$ e forefindes på de fleste de enkelte etager eller på en mellem byg. 1590 og 1592 i		Default addition to supplier manual f Last updated: 2021-09-14 4. First aid precautions: Normal • B I U • Eye rinsing bottles, emergency shower a experimental laboratories. First aid boxes are to be found at each fillaboratories in coated on the wall at the experimental ris located on the wall at the experimental ris located on the wall at the experimental shore.	or groups smf: $ \Xi := I_x$ If the blanket are to be found in most our at a central place or in the entrance between building 1590 and
Standard supplement til sikkerhedsdat Revideret den: 2021-09-14 4. Førstehjælpsforanstaltninger: Normal ÷ B I U	ablade, gældende for gruppe smf: ≡ :Ξ		Default addition to supplier manual f Last updated: 2021-09-14 4. First aid precautions: Normal • B I U • Eye rinsing bottles, emergency shower a experimental laboratories. First aid boxes are to be found at each fliporatories. Defibrillator is located on the wall at the end of the ground floor. Poison center: 82121212	or groups smf: $ \Xi ::= I_x$ and fire blanket are to be found in most our at a central place or in the entrance between building 1590 and
Standard supplement til sikkerhedsdat Revideret den: 2021-09-14 4. Førstehjælpsforanstaltninger. Normal ÷ B I U % jä Øjenskylleflaske, nødbruser og brandtæpp eksperimentelle laboratorier. Førstehjælpskasser forefindes centralt på d laboratorierne. Hjertestarter hænger på væggen i indgang- stueetagen. Giftcenteret: 82121212 Nødtelefonnr: 112 Instruktion i tilfælde af hjertestop.	ablade, gældende for gruppe smf. Ξ :Ξ		Default addition to supplier manual f Last updated: 2021-09-14 4. First aid precautions: Normal • B I U • Eye rinsing bottles, emergency shower at experimental laboratories. First aid boxes are to be found at each fillaboratories. Defibrillator is located on the wall at the efficiency of the ground floor. Poison center: 82121212 Emergency phone number: 112 Instructions in case of a heart attack	or groups smf: $I \equiv := I_x$ If the blanket are to be found in most our at a central place or in the entrance between building 1590 and

Default addition to MSDS

• Both should be filled out.

Standard supplement til sikk	erhedsdatablade, gældende for gruppe HB:		Default addition to su	pplier manual for groups HB:	
Revideret den: 2021-09-14			Last updated: 2021-09-14		
4. Førstehjælpsforanstaltning	ger:		4. First aid precautions	S:	
Normal ÷ B I U Øjenskylleflaske, nødbruser og t eksperimentelle laboratorier. Førstehjælpskasser forefindes o laboratorierne. Hjertestarter hænger på vægger stueetagen. Giftcenteret: 82121212 Nødtelefonnr: 112 Instruktion i tilfælde af hjertestor Instruktion i brug af hjertestarter	● I III IIII IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	døren. E	Normal ÷ B Eye rinsing bottles, emerexperimental laboratories. Eye rinsing bottles, emerevance First aid boxes are to be laboratories. Defibrillator is located or 1592 on the ground floor Poison center. 82121212 Emergency phone numb Instructions in case of a Instruction for using a deskyttelsesbriller skal	I U ● i≡ I_x regency shower and fire blanket are to be found in ms. in ms. in ms. found at each floor at a central place or in the the wall at the entrance between building 1590 and c er: 112 in mathematical states ifbrillator Use as standard for all □ Chemicals that are NOT using this standard te	ost /
First aid equipment:	Førstehjælpskasse ligger ovenpå vægskabene i l på væggen nær lab-døren.	lab. Øjer	llikkylleflasker er monteret	Use as standard for all Chemicals that are NOT using this standard te	ext
Emergency phoneno.:	Generel alarm: 112 Giftcenteret: 82121212 Sikkerhedsleder: 23382091		ini Ibi	Use as standard for all Chemicals that are NOT using this standard te	ext
Storing of aid tools:	Management in the day in the later second			Use as standard for all	

Add new users (notifier)

• ..in the menu under "Admin"

IROS smf - Groups	s - Admin - Guidances - Information - Help - Victoria Birkedal
	Show/Edit addition to supplier manual for smf (For S&T brugere)
	Show/Edit standard texts for manuals for smf (For HEALTH brugere: SDS => APB)
6	Vedligehold brugere
	✓ Guidance for AU ID login

Add new users (notifier)

AU ID Name Access Level au561119 Carsten Pedersen Navigator au157923 Astrid van der Aa Kühle Image: Navigator				
AU ID Name Access Level au561119 Carsten Pedersen Navigator au157923 Astrid van der Aa Kühle Navigator	AU ID users			
AU ID Name Access Level au561119 Carsten Pedersen Navigator Lager Notifier au157923 Astrid van der Aa Kühle Navigator	Click the nar	me to see details!		
au561119 Carsten Pedersen Navigator Lager Notifier au157923 Astrid van der Aa Kühle Navigator Lager Lager	AU ID	Name		Access Level
au157923 Astrid van der Aa Kühle	au561119	Carsten P	edersen	O Navigator
au157923 Astrid van der Aa Kühle Navigator Lager				 Lager Notifier
○ Lager	au157923	Astrid van	der Aa Kühle	Navigator
○ Notifier				 Lager Notifier
			-	

Add new users (notifier)

AU ID	
au561119	
AU ID uden @uni.au.dk (au1-6 tal)	
Access Level	
Navigator	
O Lager	

Relatively new in Kiros !

- Easy exchange of APB reference.
- Easy request for updates.
- Guidance documents updated.
- AU-ID login.
- Improved safety.
- Simplified search.
- Risk assessment

Kiros 2.0

- Inventory management.
- Sciformation? (stock, shop, SDS, labjournal, FAIR) – Kiros integration?

Chemicals Risk Assessment

- Which chemicals in the process?
- Hazards related to usage (incl quantities)
- Mandatory safety gear, instruction
- Conclusion is it safe?
- Kiros has a brand new module!



ist all the chemicals in the aroun (KEMA):

Chemical APV

Chem	ical risk assessment, test module under development – please send input to the three chemical consultants at Kiros, and	AU's chemicals network will look	into it.
	a S. Landona S. Landon	×	
Che	mical Risk Assesment List		
ld	Title of the work process Type	Last updated	
26	Western blotting Example	2021-09-15	
21	Piranha bath	2021-09-14	
22	Amino-silanization of Slides (and Coverslips)	2021-09-06	
23	Generelt laboratoriearbejde på lab xxxx-xxx	2021-09-09	
24	Working with cancerogenic/mutagenic/terrogene compounds	2021-09-07	
25	Working with toxic compounds	2021-09-07	

+ Add Chemical Risk Assesment

Chemical APV

Example

hemical Risk Assesment (26)

instruct the employees and students onally and in writing before the work is initiated. The local unit (department or centre) is responsible for ensuring that the right instruction is provided, and that relevant written material is made available to staff and ebudents

Standard Information for the group (?)

Kitler indenfor døren. Nitrilhandsker findes i skuffen til højre for vasken. Øjenskyller findes til højre for vasken. Førstehigeligskasse er på gangen. Brandtæppe på gangen. Brandslukningsudstyr på gangen. ETC.

Title of the work process (?)

Western blotting

safety data sheets used in the work process (?)

1 ECL prime kit Danger

GHS08 🚯 Key: 53740 CA\$-no.: 77-86-1; 107-21-1; 288-32-4 H-code(s)/statement(s): H360D

2 Ethanol, 99% Danger

GHS02 GHS07 (I) Key: 12126 CA&-no.: 64-17-5 H-code(s)/statement(s): H225-H319

3 6 X SDS loading buffer Danger

GHS05 Key: 61620 CAS-no.: 115-39-9; 3483-12-3; 151-21-3; 77-86-1; 3483-12-3 H-code(s)/statement(s): H318

4 1 x Transfer buffer Danger

GHS02 Key: 61629 CAS-no.: 64-17-5; 56-40-6; 77-86-1 H-code(s)/statement(s): H226

Dangerous stages in the work process (?)

1 prøver hentes i -80C fryser. Farer: forfrysninger	
2A prøver tilsættes 6 x SDS loading buffer i stinkskab, undgå øjenkontakt	
2 prøver varmes i varmebiok ved 96C.Farer: forbrændinger, lugt (indånding)	
3 centrifugering af prøver. Farer: skal afbalanceres, husk låg	
4 loadning af prøver. Farer: lugt (indånding), hudkontakt	
5 elektroforese (100V): Farer: elektrisk stød, indånding	
6 transferbuffer indeholdende 20 % ethanol Farer: brandfare, indånding, hudkontakt, ophæidning og blanding foregår i stinkskab	
7 transferkar. Farer: elektrisk stød	
8 ECL buffer. Farer: reproduktionstoxisk	
9 Fremkaldning. Farer: elektrisk stød	

Preventative measures (?)

Arbejd i stinkskab hvor proceduren foreskriver det, anvend kittel, nitrilhandsker, beskyttelsesbriller
Vær særlig opmærksom på sikker transport af farlige kemikaller og prøver, for at undgå spild og uheid.
1 følg - 80 fryser vejledning - brug frosthandsker
2 Undgå berøring med varmeblokken
3 centrifugering - følg centrifugens sikkerhedsvejledning
4 arbejd i stinkskab, brug handsker (nitril)
5 arbejd i stinkskab, brug handsker, følg elektroforese vejledning
6 arbejd I stinkskab, brug handsker, pas på varmekilder, gnister, åben lid
7 arbejd i stinkskab, brug handsker, følg elektroforese vejledning
8 arbejd I stinkskab, brug handsker. Foretag gravidvurdering
9 arbeid I stinkskab, hruo handsker, føld fremkalder velledning
lisk assessment of the work process (?)
Følges de forebyggende foranstaltninger bør der like være risiko for udsættelse af farlige kemikaller eller fysiske farer ved brug af apparaturet.

Toxic compounds

- There are special rules for use of toxic compounds. (klassificeringsbekendtgørelsen, MST rules)
- Toxic substances or H370 (>125mL) or cancerogenic H350 or mutagene H340.



- Store locked up and usage (theft) is registrered. Poison responsable who ensures correct storage. Warning sign on poisons locker/lab.
- List available in Kiros.



Cancerogenic substances

- There are special rules for the uses and labelling of cancerogenic/mutagene substances and waste.
- All substances/mixtures with >0,1% H350/H351 or H340/H341. Or on the danish list of cancerogenic substances.
- For instance, THF and TiO2 (powder <10μm) H351.
- List available in Kiros.

Cancerogenic substances

»Indeholder et stof, der er omfattet af dansk arbejdsmiljøregulering med hensyn til kræftrisiko«.

- Extra attention to the complete <u>elimination</u> of exposure. Consider your process.
- Use fumehood/glove box.
- If exposure cannot be eliminated or by accidents, users must be registered and the info kept for 40 years.
- §20 substances has particular attention only use in closed systems.
- Avoid that substances spread in your lab (clean workspace, regular lab coat wash).

Pregnant and breastfeeding

- Special attention to exposure concerning some classifications and types of chemicals (organic solvents, endocrine disruptors, cancerogenic etc)
- 1/10 GV (fetus special/unknown effects)
- Also heavy lifting, cold/warm work environment, radiation etc.
- AT guidance VEJ nr 9170 af 15/03/2021
- List available in Kiros.

Explosives precursors

- EU regulation 2019/1148 in effect 1. feb 2021
- H2O2 (12%), nitric acid (3%), ammonium nitrate, conc sulphoric acid (15%), perchlorates control¬ification. Also metalpowders, acetone, other nitrates notification.
- Suppliers must get costumer declarations and ask for ID (for instance drivers license)
- Supplier must store info on transactions for 18 months.
- Notification within 24 h if theft is suspected!