

## Varnostni list

### ACTIVE ONE

Varnostni list z dne 21/06/2023 revizija 1

Pozor: oštevilčenje se znova začne od 1.



## ODDELEK 1: Identifikacija snovi/zmesi in družbe/podjetja

### 1.1 Identifikator izdelka

Identifikacija pripravka:

Komercialno ime: ACTIVE ONE

Komercialna koda: COLA01

UFI: N300-F07R-H00Q-AWQG

### 1.2 Pomembne identificirane uporabe snovi ali zmesi in odsvetovane uporabe

Priporočena uporaba: Detergent

### 1.3 Podrobnosti o dobavitelju varnostnega lista

Dobavitelj FASSA Srl

Via Lazzaris, 3 - 31027 Spresiano (TV) - ITALY

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Fax +39 0422 887509

Odgovorni: laboratorio.spresiano@fassabortolo.it

### 1.4 Telefonska številka za nujne primere

112 - Center za obveščanje (na voljo 24 ur)

## ODDELEK 2: Določitev nevarnosti



### 2.1 Razvrstitev snovi ali zmesi

#### Uredba (ES) št. 1272/2008 (CLP)

Met. Corr. 1	Lahko je jedko za kovine.
Skin Corr. 1B	Povzroča hude opekline kože in poškodbe oči.
Eye Dam. 1	Povzroča hude poškodbe oči.
Aquatic Acute 1	Zelo strupeno za vodne organizme.
Aquatic Chronic 2	Strupeno za vodne organizme, z dolgotrajnimi učinki.

Nevarnosti fizikalno-kemijskih lastnosti za zdravje ljudi in za okolje:

Ni drugih tveganj

### 2.2 Elementi etikete

#### Uredba (ES) št. 1272/2008 (CLP)

#### Piktogrami za nevarnost in Opozorilna beseda



Nevarno

#### Stavki o nevarnosti

H290	Lahko je jedko za kovine.
H314	Povzroča hude opekline kože in poškodbe oči.
H410	Zelo strupeno za vodne organizme, z dolgotrajnimi učinki.

#### Previdnostni stavki

P101	Če je potreben zdravniški nasvet, mora biti na voljo posoda ali etiketa proizvoda.
P102	Hraniti zunaj dosega otrok.
P234	Hraniti samo v originalni embalaži.
P260	Ne vdihavati dima/plina/meglence/hlapov/razpršila
P280	Nadenite si zaščitne rokavice/obleke ter zaščitite oči/obraz.
P301+P330+P331	PRI ZAUŽITJU: Izprati usta. Ne izzivati bruhanja.

P303+P361+P35 PRI STIKU S KOŽO (ali lasmi): Takoj sleči vsa kontaminirana oblačila. Kožo izprati z vodo ali prho.

P305+P351+P33 PRI STIKU Z OČMI: Previdno izpirati z vodo nekaj minut. Odstranite kontaktne leče, če jih imate in če to lahko storite brez težav. Nadaljujte z izpiranjem.

P310 Takoj pokličite CENTER ZA ZASTRUPITVE/ zdravnika.

P405 Hraniti zaklenjeno.

P501 Odstraniti vsebino/posodo v skladu z nacionalnimi predpisi.

Posebne oznake:

- EUH031 V stiku s kislinami se sprošča strupen plin.
- PACK1 Embalaža mora razpolagati z varnostno zaporo za otroke.
- PACK2 Aktivna varnostna opozorila za slepe.
- EUH206 Pozor! Ne uporabljajte skupaj z drugimi izdelki. Lahko se sproščajo nevarni plini (klor).

Vsebuje:

natrijev hipoklorit, raztopina 14% aktivnega klora

Posebne določbe v skladu s Prilogo XVII uredbe REACH in poznejše spremembe:

Nobeden

2.3 Druge nevarnosti

Ni snovi PBT, vPvB ali endokrinih motilcev v koncentraciji > = 0,1%.

Označevanje vsebine v skladu z Uredbo (ES) št. 648/2004): < 5 % neionske površinsko aktivne snovi, fosfonati; med 5-15 % belila na osnovi klora.

Opozorilo: Ne uporabljati skupaj z drugimi izdelki. Lahko se sproščajo nevarni plini (klor).

Ni drugih tveganj

ODDELEK 3: Sestava/podatki o sestavinah

3.1 Snovi

ni znano

3.2 Zmesi

Identifikacija pripravka: ACTIVE ONE

Nevarne sestavine, skladno z Uredbo CLP in njeno razvrstitvijo:

Količina	Ime	Ident. št.	Razvrstitev	Registracijska številka
≥ 80%	natrijev hipoklorit, raztopina 14% aktivnega klora	CAS:7681-52-9 EC:231-668-3 Index:017-011-00-1	Met. Corr. 1, H290 Skin Corr. 1B, H314 Eye Dam. 1, H318 Aquatic Acute 1, H400 Aquatic Chronic 2, H411, M-Chronic:1, M-Acute:10, EUH031  Posebne mejne koncentracije: 5% ≤ C < 100%: EUH031	01-2119488154-34-xxxx
≥0.3 - <0.5 %	N,N-dimetiltetradecilamin N-oksid	CAS:3332-27-2 EC:222-059-3	Acute Tox. 4, H302; Eye Dam. 1, H318; Skin Irrit. 2, H315; Aquatic Acute 1, H400; Aquatic Chronic 2, H411, M-Acute:1	01-2119949262-37-xxxx

ODDELEK 4: Ukrepi za prvo pomoč

4.1 Opis ukrepov za prvo pomoč

V primeru stika s kožo:

- Kontaminirana oblačila takoj slecite in jih na varen način odstranite.
- V primeru stika s proizvodom in tudi v primeru suma morebitnega stika, dele telesa takoj umijte z veliko količino tekoče vode in milom.
- TAKOJ SE POSVETUJTE Z ZDRAVNIKOM.

V primeru stika z očmi:

- V primeru stika z očmi dovolj dolgo in z odprtimi očesnimi vekami izpirajte z obilo vode, nato poiščite pomoč zdravnika oftalmologa.
- Poškodovano oko zaščitite.

V primeru zaužitja:

Po zaužitju ne izzivati bruhanja, takoj poiskati zdravniško pomoč in pokazati varnostni list in nalepko.

V primeru vdihavanja:

Prizadeto osebo umaknite na svež zrak in pustite počivati na toplem.

#### **4.2 Najpomembnejši simptomi in učinki, akutni in zapozneli**

Simptomi in učinki so taki, kot je pričakovano glede na nevarnosti, kar je prikazano v 2. razdelku.

#### **4.3 Navedba kakršne koli takojšnje medicinske oskrbe in posebnega zdravljenja**

V primeru nesreče ali slabega počutja takoj poiščite zdravniško pomoč (če je mogoče, pokažite navodila za uporabo ali varnostni list).

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### **ODDELEK 5: Protipožarni ukrepi**

#### **5.1 Sredstva za gašenje**

Ustrezna sredstva za gašenje:

Proizvod ni vnetljiv

Sredstva za gašenje, ki se jih iz varnostnih razlogov ne sme uporabljati:

Noben posebej.

#### **5.2 Posebne nevarnosti v zvezi s snovjo ali zmesjo**

Pri gorenju nastajajo težki dimni plini.

V primeru požara in/ali eksplozije ne vdihavajte dima.

#### **5.3 Nasvet za gasilce**

Uporabiti ustrezne dihalne naprave.

Ločeno zberite kontaminirano vodo, uporabljeno za gašenje požara. Ne je izpustiti v kanalizacijo.

Če je to varno izvedljivo, nepoškodovane vsebnike umaknite iz neposredno ogroženega območja.

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### **ODDELEK 6: Ukrepi o nenamernih izpustih**

#### **6.1 Osebni varnostni ukrepi, zaščitna oprema in postopki v sili**

Nosite osebno varovalno opremo.

Osebe umaknite na varno mesto.

Glejte v točki 7 in 8 navedene zaščitne ukrepe.

#### **6.2 Okoljevarstveni ukrepi**

Preprečite vstop v tla/podtalnico. Preprečite razlitje v površinske vode ali v kanalizacijo.

V primeru puščanja plina ali razlitja v vodne tokove, tla ali kanalizacijo obvestite pristojne organe.

#### **6.3 Metode in materiali za zadrževanje in čiščenje**

Za zbiranje primeren material: inerten vpojni materiali (npr. pesek, vermikulit).

Po pobiranju z vodo izperite območje in prizadete materiale.

Kontaminirano vodo za pranje shranite in odstranite.

#### **6.4 Sklicevanje na druge oddelke**

Glejte tudi naslova 8 in 13

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### **ODDELEK 7: Ravnanje in skladiščenje**

#### **7.1 Varnostni ukrepi za varno ravnanje**

Preprečite stik s kožo in očmi, vdihavanje hlapov in megle.

Prazne vsebnike ne uporabite dokler niso očiščeni.

Pred postopki prenosa se prepričajte, da v vsebnikih ni ostankov nezdružljivih materialov.

Nasveti o splošni higieni dela:

Kontaminirana oblačila se mora pred vstopom v jedilnico zamenjati.

Med delom ne jejte in ne pijte.

Glejte tudi naslov 8 o priporočeni varovalni opremi.

#### **7.2 Pogoji za varno skladiščenje, vključno z nezdružljivostjo**

Posode hranite tesno zaprte na hladnem in dobro prezračevanem mestu proč od virov toplote.

Ne prelivajte izdelka v druge posode. Vedno uporabljajte originalne posode.

Hranite stran od hrane, pijač in krme.

Inkompaktibilne snovi:

Glejte točko 10.5

Vzdržujte daleč od kislin.

Navodila za prostore:

Primerno zračeni prostori.

Zaščitite pred zmrzaljo.

#### **7.3 Posebne končne uporabe**

Priporočila

Glejte točko 1.2

Specifične rešitve za industrijski sektor

**ODDELEK 8: Nadzor izpostavljenosti/osebna zaščita****8.1 Parametri nadzora****Seznam sestavin z OEL vrednostmi**

	<b>Način izpostavljenosti na delovnem mestu</b>	<b>Dolgotrajna mg/m<sup>3</sup></b>	<b>Dolgotrajne jša ppm</b>	<b>Kratkotrajna mg/m<sup>3</sup></b>	<b>Kratkotrajna ppm</b>	<b>Opomba</b>
natrijev hipoklorit, raztopina 14% aktivnega klora CAS: 7681-52-9	EU			1.5	0.5	
	ACGIH		0.1		0.4	

**Mejna vrednost izpostavljenosti po PNEC**

	<b>PNEC Omejitev</b>	<b>Način izpostavitve</b>	<b>Pogostost izpostavitve</b>	<b>Opombe</b>
natrijev hipoklorit, raztopina 14% aktivnega klora CAS: 7681-52-9	0.042 µg/l	Morska voda		
	0.21 µg/l	Sladka voda		
	4.69 mg/l	Mikroorganizmi v čistilnih napravah (STP)		
	11.1 mg/kg	Prehranska veriga		

**Izpeljane vrednosti brez učinka. (DNEL)**

	<b>Industrijski delavec</b>	<b>Strokovni delavec</b>	<b>Uporabnik</b>	<b>Način izpostavitve</b>	<b>Pogostost izpostavitve</b>	<b>Opombe</b>
natrijev hipoklorit, raztopina 14% aktivnega klora CAS: 7681-52-9		3.1 mg/m <sup>3</sup>	3.1 mg/m <sup>3</sup>	Z vdihavanje m, človek	Kratkotrajna, sistemski učinek	
		3.1 mg/m <sup>3</sup>	3.1 mg/m <sup>3</sup>	Z vdihavanje m, človek	Kratkotrajna, lokalni učinek	
		1.55 mg/m <sup>3</sup>	1.55 mg/m <sup>3</sup>	Z vdihavanje m, človek	Dolgotrajna, lokalni učinek	
		1.55 mg/m <sup>3</sup>	1.55 mg/m <sup>3</sup>	Z vdihavanje m, človek	Dolgotrajna, sistemski učinek	
			0.26 mg/kg	Oralno, človek	Dolgotrajna, sistemski učinek	

**8.2 Nadzor izpostavljenosti**

Poskrbite za ustrezno prezračevanje. Kadar je to izvedljivo, je to mogoče doseči z uporabo nadomestnega prezračevanja in dobrim splošnim vsesavanjem.

Zaščita oči:

Očala s stranskimi varovali (EN 166).

Zaščita kože:

Uporabljajte oblačila, primerna za popolno zaščito kože glede na dejavnost in izpostavljenost (EN 14605/EN 13982), npr. delovni kombinezon, predpasnik, zaščitna obutev, primerna oblačila.

Zaščita rok:

Ni materiala ali kombinacije materialov za rokavice, ki bi lahko zagotovili neomejeno odpornost na katero koli kombinacijo kemikalij

ali proizvodov.

Za daljše ali večkratno rokovanje uporabite rokavice, odporne na kemikalije.

Ustrezne rokavice tipa (EN 374/EN 16523); PVC (polivinilklorid): debelina  $\geq 0.4$  mm; permeacijski čas  $\geq 480$  min.

Izbira primernih rokavic ni odvisna samo od materiala, temveč tudi od drugih kakovostnih lastnosti, ki se razlikujejo od enega do drugega proizvajalca, in od načinov ter časov uporabe mešanice.

Zaščita dihalnih poti:

Če so delavci izpostavljeni koncentracijam nad mejnimi vrednostmi izpostavljenosti, morajo uporabljati primerne, certificirane dihalne aparate.

Kombinirana filtrirna naprava (EN 14387).

Nadzor izpostavljenosti okolja:

Glejte točko 6.2

Higienski in tehnični ukrepi

Glejte poglavje 7.

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## ODDELEK 9: Fizikalne in kemijske lastnosti

### 9.1 Podatki o osnovnih fizikalnih in kemijskih lastnostih

Izgled: Tekoče

Barva: rumen

Vonj: značilnost

Tališče/ledišče: N.D.

Točka začetka vretja in interval vretja: N.D.

Vnetljivost: ni znano

Zgornja/spodnja meja vnetljivosti ali eksplozivnosti: N.D.

Plamenišče:  $> 60^{\circ}\text{C} / 93^{\circ}\text{C}$

Temperatura samovžiga: N.D.

Temperatura razgradnje: N.D.

pH:  $\geq 11.50 \leq 12.50$  ( Interna metoda )

Kinematična viskoznost: ni znano

Gustota:  $1,19 \text{ kg/l}$  ( Interna metoda )

Gostota hlapov: N.D.

Parni tlak: N.D.

Topnost v vodi: mešljiv v vseh razmerjih

Topnost v olju: ni znano

Porazdelitveni koeficient (n-oktanol/voda): ni znano

#### Lastnosti delcev:

Velikost delcev: ni znano

### 9.2 Drugi podatki

Prevodnost: N.D.

Eksplozivne lastnosti: ni znano ( Notranja evalvacija )

Stopnja korozije kovine: 7.00

Oksidativne lastnosti: ni znano ( Notranja evalvacija )

Hitrost izparevanja: ni znano

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## ODDELEK 10: Obstočnost in reaktivnost

### 10.1 Reaktivnost

Stabilna v normalnih pogojih

### 10.2 Kemijska stabilnost

Stabilna v normalnih pogojih

### 10.3 Možnost poteka nevarnih reakcij

V stiku s halogeniranimi snovmi, osnovnimi kovinami lahko sprošča vnetljive pline.

### 10.4 Pogoji, ki se jim je treba izogniti

Izogibajte se bližine toplotnih virov.

Preprečite stik s kislinami in z nekaterimi kovinami (aluminij in njegove zlitine, cink).

### 10.5 Nezdružljivi materiali

Glejte točko 10.3

### 10.6 Nevarni produkti razgradnje

V primeru pravilnega skladiščenja in ravnanja ne pride do razvoja nevarnih produktov razgradnje.

Glejte točko 5.2

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## ODDELEK 11: Toksikološki podatki

### 11.1 Podatki o razredih nevarnosti, kakor so opredeljeni v Uredbi (ES) št. 1272/2008

**Toksikološki podatki izdelka:**

a) akutna strupenost	Ni klasificirano
	Na podlagi razpoložljivih podatkov merila za razvrstitev niso izpolnjena.
b) jedkost za kožo/draženje kože	Proizvod je razvrščen: Skin Corr. 1B(H314)
c) resne okvare oči/draženje	Proizvod je razvrščen: Eye Dam. 1(H318)
d) preobčutljivost pri vdihavanju in preobčutljivost kože	Ni klasificirano
	Na podlagi razpoložljivih podatkov merila za razvrstitev niso izpolnjena.
e) mutagenost za zarodne celice	Ni klasificirano
	Na podlagi razpoložljivih podatkov merila za razvrstitev niso izpolnjena.
f) rakotvornost	Ni klasificirano
	Na podlagi razpoložljivih podatkov merila za razvrstitev niso izpolnjena.
g) strupenost za razmnoževanje	Ni klasificirano
	Na podlagi razpoložljivih podatkov merila za razvrstitev niso izpolnjena.
h) STOT - enkratna izpostavljenost	Ni klasificirano
	Na podlagi razpoložljivih podatkov merila za razvrstitev niso izpolnjena.
i) STOT - ponavljajoča se izpostavljenost	Ni klasificirano
	Na podlagi razpoložljivih podatkov merila za razvrstitev niso izpolnjena.
j) nevarnost pri vdihavanju	Ni klasificirano
	Na podlagi razpoložljivih podatkov merila za razvrstitev niso izpolnjena.

**Toksikološki podatki glavnih snovi, ki jih najdemo v izdelku:**

natrijev hipoklorit, raztopina 14% aktivnega klora	a) akutna strupenost	LD50 Oralno Podgana 1100 mg/kg
		LD50 Koža Zajec 20000 mg/kg
		LC50 Vdihavanje Podgana 10500 mg/m <sup>3</sup> 1h

**11.2 Podatki o drugih nevarnostih****Lastnosti endokrinih motilcev:**

Ni endokrinih motilcev v koncentraciji  $\geq 0,1\%$ .

**ODDELEK 12: Ekološki podatki**

Uporabljajte v skladu z dobrimi delovnimi navadami, izogibajte se odlaganju izdelka v okolju.

**12.1 Strupenost**

Ekotoksikološki podatki:

Strupeno za vodne organizme, z dolgotrajnimi učinki.

**Ekotoksikoloških lastnosti izdelka**

Proizvod je razvrščen: Aquatic Acute 1(H400), Aquatic Chronic 2(H411)

**Seznam sestavin z ekotoksikološkimi lastnostmi**

Sestavina	Ident. št.	Ekotoksikološki podatki
natrijev hipoklorit, raztopina 14% aktivnega klora	CAS: 7681-52-9 - EINECS: 231-668-3 - INDEX: 017-011-00-1	a) akutna strupenost za vodno okolje : LC50 Riba 0.032 mg/l 96h  a) akutna strupenost za vodno okolje : EC50 Vodna bolha 0.165 mg/l 48h a) akutna strupenost za vodno okolje : EC50 Alge 0.05 mg/l 72h b) kronična strupenost za vodno okolje : NOEC Riba 0.04 mg/l 28d b) kronična strupenost za vodno okolje : NOEC Vodna bolha 0.007 mg/l - 14d  b) kronična strupenost za vodno okolje : NOEC Alge 0.02 mg/l 96h

**12.2 Obstočnost in razgradljivost****Sestavina****Obstočnost/razgradljivost:**

natrijev hipoklorit, raztopina 14% aktivnega klora Neobstočno in biološko razgradljivo

### 12.3 Zmožnost kopičenja v organizmih

ni znano

### 12.4 Mobilnost v tleh

ni znano

### 12.5 Rezultati ocene PBT in vPvB

Na podlagi razpoložljivih podatkov, preparat ne vsebuje snovi PBT/vPvB v procentu  $\geq 0.1\%$ .

### 12.6 Lastnosti endokrinih motilcev

Ni endokrinih motilcev v koncentraciji  $> = 0,1\%$ .

### 12.7 Drugi škodljivi učinki

ni znano

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## ODDELEK 13: Odstranjevanje

### 13.1 Metode ravnanja z odpadki

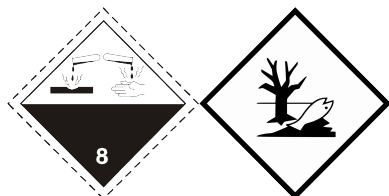
Če je mogoče, predelajte. Pošljite v usposobljena odlagališča ali v zažig pod kontroliranimi pogoji. Ravnajte se po lokalnih in državnih normah.

Ne dopustite, da pride v kanalizacijo ali vodne poti.

Odstraniti posode, ki jih kontaminira izdelka v skladu z lokalnimi ali nacionalnimi predpisi.

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## ODDELEK 14: Podatki o prevozu



### 14.1 Številka ZN in številka ID

1791

### 14.2 Pravilno odpremno ime ZN

ADR-uradno ime blaga: HYPOCHLORITE SOLUTION

IATA-tehnično ime blaga: HYPOCHLORITE SOLUTION

IMDG-tehnično ime blaga: HYPOCHLORITE SOLUTION

### 14.3 Razredi nevarnosti prevoza

ADR-Razred: 8

IATA-razred: 8

IMDG-razred: 8

### 14.4 Skupina embalaže

ADR-embalažna skupina: II

IATA-embalažna skupina: II

IMDG-embalažna skupina: II

### 14.5 Nevarnosti za okolje

Onesnaževalec morja: Da

Onesnažuje okolje po: Da

IMDG-EMS: F-A, S-B

### 14.6 Posebni previdnostni ukrepi za uporabnika

Cestni in železniški transport (ADR-RID):

ADR-nalepka nevarnosti: 8

ADR - Identifikacijska številka nevarnosti: 80

ADR-posebni ukrepi: 521

ADR-Pravilnik o cestnem prevozu nevarnega blaga:

Zračni transport (IATA):

IATA-potniška letala: 851

IATA-tovorna letala: 855

IATA-nalepka: 8

IATA-Stranske nevarnosti: -

IATA-Erg: 8L

IATA-posebni ukrepi: A3 A803

Morski transport (IMDG):

IMDG-skladiščenje, kodeks: Category B

IMDG-skladiščenje, opomba: SG20 SGG8

IMDG-Stranske nevarnosti: -

IMDG-posebni ukrepi: 274 900

#### 14.7 Pomorski prevoz v razsutem stanju v skladu z instrumenti IMO

ni znano

### ODDELEK 15: Zakonsko predpisani podatki

#### 15.1 Predpisi/zakonodaja o zdravju, varnosti in okolju, specifični za snov ali zmes

Dir. 98/24/ES (Varovanje delavcev pred tveganji zaradi izpostavljenosti kemičnim snovem pri delu)

Dir. 2000/39/ES (mejne vrednosti za poklicno izpostavljenost)

Direktiva 2010/75/EU

Uredba (ES) št. 1907/2006 (REACH)

Uredba (ES) št. 1272/2008 (CLP)

Uredba (ES) št. 790/2009 (1. ATP CLP) in (EU) št. 758/2013

Uredba (EU) 2020/878

Uredba (EU) št. 286/2011 (2. ATP CLP)

Uredba (EU) št. 618/2012 (3. ATP CLP)

Uredba (EU) št. 487/2013 (4. ATP CLP)

Uredba (EU) št. 944/2013 (5. ATP CLP)

Uredba (EU) št. 605/2014 (6. ATP CLP)

Uredba (EU) 2015/1221 (7. ATP CLP)

Uredba (EU) 2016/918 (8. ATP CLP)

Uredba (EU) 2016/1179 (9. ATP CLP)

Uredba (EU) 2017/776 (10. ATP CLP)

Uredba (EU) 2018/669 (11. ATP CLP)

Uredba (EU) 2018/1480 (13. ATP CLP)

Uredba (EU) 2019/521 (12. ATP CLP)

Uredba (EU) 2020/217 (14. ATP CLP)

Uredba (EU) 2020/1182 (15. ATP CLP)

Uredba (EU) 2021/643 (16. ATP CLP)

Uredba (EU) 2021/849 (17. ATP CLP)

Uredba (EU) 2022/692 (18. ATP CLP)

**Omejitve, povezane z izdelkom ali vsebovanimi snovmi, v skladu s Prilogo XVII Uredbe (ES) 1907/2006 (REACH) in poznejše spremembe:**

Obmedzenia vo vzťahu s výrobkom: 3

Obmedzenia vo vzťahu s obsiahnutými látkami: 75

#### Določbe v zvezi z direktivo EU 2012/18 (Seveso III)

Kategorija Seveso III v skladu s Prilogo 1, del 1	Mejna vrednost nižje stopnje (v tonah)	Mejna vrednost višje stopnje (v tonah)
izdelek spada v kategorijo: E1	100	200
izdelek spada v kategorijo: E2	200	500

#### Uredba (EU) št. 649/2012 (uredba PIC)

Snovi niso navedene

#### Nemški razred nevarnosti za vodo.

2: Hazard to waters

#### SVHC snovi:

Na podlagi razpoložljivih podatkov, preparat ne vsebuje snovi SVHC v procentu  $\geq 0.1\%$ .

Informacije o sestavinah v skladu z Ur. (CE) 648/2004: < 5 % neionske površinsko aktivne snovi, fosfonati; med 5-15 % belila na osnovi klora.

#### 15.2 Ocena kemijske varnosti

Ocena kemijske varnosti ni bila opravljena za mešanice

### ODDELEK 16: Drugi podatki

Številka	Opis
EUH031	V stiku s kislinami se sprošča strupen plin.



H290	Lahko je jedko za kovine.
H302	Zdravju škodljivo pri zaužitju.
H314	Povzroča hude opekline kože in poškodbe oči.
H315	Povzroča draženje kože.
H318	Povzroča hude poškodbe oči.
H400	Zelo strupeno za vodne organizme.
H411	Strupeno za vodne organizme, z dolgotrajnimi učinki.

Številka	Razred in kategorija nevarnosti	Opis
2.16/1	Met. Corr. 1	Snov ali zmes, jedka za kovine, Kategorija 1
3.1/4/Oral	Acute Tox. 4	Akutna strupenost (oralno), Kategorija 4
3.2/1B	Skin Corr. 1B	Jedkost za kožo, Kategorija 1B
3.2/2	Skin Irrit. 2	Draženje kože, Kategorija 2
3.3/1	Eye Dam. 1	Hude poškodbe oči, Kategorija 1
4.1/A1	Aquatic Acute 1	Akutno nevarnost za vodno okolje, Kategorija 1
4.1/C2	Aquatic Chronic 2	Kronično (dolgotrajno) nevarnost za vodno okolje, Kategorija 2

#### Razvrstitev in postopek, uporabljen za izpeljavo razvrstitve za zmesi v skladu z Uredbo (ES) 1272/2008 [uredba CLP]:

##### Razvrstitev v skladu z Uredbo (ES) št. 1272/2008 Postopek razvrščanja

2.16/1	na podlagi podatkov o preskusih
3.2/1B	metoda izračuna
3.3/1	metoda izračuna
4.1/A1	metoda izračuna
4.1/C2	metoda izračuna

Ta dokument je pripravila pristojna oseba, ki je ustrezno usposobljena

Glavni bibliografski viri:

ECDIN – Informacijska mreža za okoljske podatke za kemikalije – Skupno raziskovalno središče, Komisija Evropskih skupnosti  
 SAX – NEVARNE LASTNOSTI INDUSTRIJSKIH MATERIALOV – 8. izdaja – Van Nostrand Reinold  
 Varnostni listi dobaviteljev surovin.  
 CCNL - All. 1

Predstavljene informacije se nanašajo na naše znanje v zgoraj navedenem datumu. Nanašajo se zgolj na omenjeni izdelek in ne predstavljajo garancije za posebno kakovost.

Uporabnik je dolžan preveriti pravilnost in popolnost teh informacij glede na svojo specifično uporabo.

Ta list razveljavlja in nadomešča vsako predhodno izdajo

Legenda okrajšav in kratic, uporabljenih v varnostnem listu:

ACGIH: Ameriška konferenca vladnih industrijskih higienikov  
 ADR: Evropski sporazum o mednarodnem prevozu nevarnih snovi v cestnem prometu.  
 ATE: Ocena akutne strupenosti  
 ATEmix: Ocena akutne strupenosti (Zmesi)  
 BEI: Biološki indeks izpostavljenosti  
 CAS: Chemical Abstracts Service (oddelek Ameriškega kemijskega društva).  
 CAV: Center za zastrupitve  
 CE: Evropska skupnost  
 CLP: Razvrščanje, etiketiranje, pakiranje.  
 CMR: Rakotvorno, mutageno in strupeno za razmnoževanje  
 COV: Hlapna organska spojina  
 CSA: Ocena kemijske varnosti  
 CSR: Poročilo o kemijski varnosti  
 DNEL: Izpeljane vrednosti brez učinka.  
 EC50: Srednja učinkovita koncentracija  
 ECHA: Evropska agencija za kemikalije  
 EINECS: Evropski seznam obstoječih snovi.  
 ES: Scenarij izpostavljenosti  
 GefStoffVO: Odlok o nevarnih snoveh, Nemčija.  
 GHS: Globalno poenoten sistem razvrščanja in označevanja nevarnih kemikalij.  
 IARC: Mednarodna agencija za raziskovanje raka  
 IATA: Mednarodno združenje za zračni transport.  
 IC50: Srednja inhibitorna koncentracija  
 IMDG: Mednarodni kodeks za prevoz nevarnega blaga po morju  
 LC50: Letalna koncentracija za 50 odstotkov testne populacije.

LD50: Letalna doza za 50 odstotkov testne populacije.  
LDLo: Najnižja smrtna doza  
N.A.: Se ne uporablja  
N/A: Se ne uporablja  
N/D: Ni opredeljeno/Ni razpoložljiv  
N.D.: Ni razpoložljiv  
NIOSH: Nacionalni inštitut za varnost in zdravje pri delu  
NOAEL: Raven brez opaznih negativnih vplivov  
OSHA: Upravljanje varnosti in zdravja pri delu  
PBT: Obstojne, se kopičijo v organizmih in so strupene  
PGK: Navodila za embalažo nevarnih snovi  
PNEC: Predvidena koncentracija brez učinka.  
PSG: Potniki  
RID: Pravilnik o mednarodnem prevozu nevarnega blaga po železnici.  
STEL: Meja za kratkotrajno izpostavljenost.  
STOT: Specifično strupeno za ciljne organe.  
TLV: Mejna vrednost izpostavljenosti.  
TLV-TWA: Mejna vrednost izpostavljenosti v časovnem obdobju po 8 ur dnevno (ACGIH standard).  
vPvB: Telo obstojno, se zelo lahko kopiči v organizmih.  
WGK: Nemški razred nevarnosti za vodo.

# SODIUM HYPOCHLORITE

## Substance identification

Chemical Name: SODIUM HYPOCHLORITE

CAS number: 7681-52-9

Date - Version: April 2019

## PROFESSIONAL USE AS A CLEANING AGENT

### SECTION 1: TITLE OF THE EXPOSURE SCENARIO

#### Title

Professional use as a cleaning agent

#### List of use descriptors;

SU22: Professional uses: administration, education, entertainment, services, craftsmen

PC35 Washing and cleaning products (including solvent-based ones)

#### ERC

ERC8a Wide dispersive indoor use of processing aids in open systems

ERC8b Wide dispersive indoor use of reactive substances in open systems

ERC8d Wide dispersive outdoor use of processing aids in open systems

ERC8e Wide dispersive outdoor use of reactive substances in open systems

#### PROC

PROC5 Mixing in batch processes (multistage and/or significant contact) (PROC5)

PROC9 Transfer of chemicals into small containers (dedicated filling line)

PROC10 Application with rollers or brushes

PROC11 Professional spraying

PROC13 Treatment of articles by dipping and pouring

PROC15 Use as a laboratory reagent

### SECTION 2: OPERATING CONDITIONS AND RISK MANAGEMENT MEASURES

#### 2.1. ENVIRONMENTAL EXPOSURE CONTROL - Exposure scenarios determining environmental exposure for ERC8a, 8b, 8d, 8e

##### Product features

Substance with a unique structure. Not hydrophobic. Readily biodegradable: Concentration < 5%.

##### European tonnage

250-450,000 tons per year of sodium hypochlorite solution.

##### Frequency and duration of use

Continuous release. Issue days: 360 days/year

##### Environmental factors not influenced by risk management

Fresh surface water dilution factor 10.

Sea water dilution factor 100.

##### Other operating conditions affecting environmental exposure

Avoid release to environment (surface water or soil) or wastewater. However, sodium hypochlorite disappears rapidly in all the scenarios presented, due to rapid reduction in the receiving body or in the sewer system. No release to the environment is therefore expected. In the worst case, the free available chlorine measured as total residual chlorine (TRC) is expected to be less than 1.0E-13 mg/l.

##### Technical conditions and measures at process level to prevent release

The practices used may vary from site to site and must comply with the Biocides Directive 98/8/EC.

##### Local technical conditions and measures on site to reduce or limit emissions to air and release to soil.

NaClO must be completely reduced to sodium chloride during the process to avoid critical releases to the environment.

##### Organizational measures to prevent/limit releases from the site

Prevent releases into the environment in accordance with legislative provisions.

##### Conditions and measures related to industrial or municipal wastewater plant

Wastewater treatment is required to remove all residual organic compounds and unreacted free chlorine.

##### Conditions and measures related to the external treatment of waste for disposal

External treatment and disposal of waste should comply with applicable local and/or national regulations.

#### 2.2. WORKER EXPOSURE CONTROL - Exposure scenarios determining environmental exposure for PROC 5, 9, 10, 11, 13, 15

##### GENERAL CONDITIONS APPLICABLE TO ALL ACTIVITIES

G12 - Covers percentage substance in the product up to 25 % (unless otherwise stated).

G2 - Covers daily exposures up to 8 hours (unless otherwise stated).

OC8 - Indoor

Risk management measures and measures related to personal protection, hygiene and health evaluation: see GENERAL RISK MANAGEMENT MEASURES, appendix 1, at the end of this document.

## SPECIFIC CONDITIONS APPLICABLE TO SPECIFIC ACTIVITIES

Scenarios:

### **PROC5: Mixing in batch processes (multistage and/or significant contact) (PROC5)**

Duration of use: no specific condition

Substance concentration: no specific condition

Risk management measures: Provide a good standard of natural ventilation. Natural ventilation is that from doors, windows, etc. Controlled ventilation means that air is supplied and exchanged by fans. Low containment process.

### **PROC9 Transfer of chemicals into small containers (dedicated filling line)**

Duration of use: no specific condition

Substance concentration: no specific condition

Risk management measures: Provide a good standard of natural ventilation. Natural ventilation is that from doors, windows, etc. Controlled ventilation means that air is supplied and exchanged by fans. Low containment process.

### **PROC10 Application with rollers or brushes**

Duration of use: OC28 - Avoid carrying out activities involving exposure for more than 4 hours.

Substance concentration: no specific condition

Risk management measures: Provide a good standard of natural ventilation. Natural ventilation is that from doors, windows, etc. Controlled ventilation means that air is supplied and exchanged by fans. Low containment process.

### **PROC11 Professional spraying**

Duration of use: OC28 - Avoid carrying out activities involving exposure for more than 1 hour.

Substance concentration: no specific condition

Risk management measures: Provide a good standard of natural ventilation. Natural ventilation is that from doors, windows, etc. Controlled ventilation means that air is supplied and exchanged by fans. Low containment process.

### **PROC13 Treatment of articles by dipping and pouring**

Duration of use: OC28 - Avoid carrying out activities involving exposure for more than 4 hours.

Substance concentration: no specific condition

Risk management measures: Provide a good standard of natural ventilation. Natural ventilation is that from doors, windows, etc. Controlled ventilation means that air is supplied and exchanged by fans. Low containment process.

### **PROC15 Use as a laboratory reagent**

Duration of use: no specific condition

Substance concentration: no specific condition

Risk management measures: Provide a good standard of natural ventilation. Natural ventilation is that from doors, windows, etc. Controlled ventilation means that air is supplied and exchanged by fans.

## SECTION 3: EXPOSURE ESTIMATIONS AND REFERENCE TO ITS ORIGIN

### 3.1. Environment

EE8 - Qualitative approach used to conclude safe use (see appendix 2 at the end of this document).

#### Predicted environmental concentrations - PECs

In accordance with the above qualitative assessment, the worst exposure concentration used as a PEC in a wastewater treatment plant is 1.0E-13 mg/l. PECs for other compartments are not applicable as sodium hypochlorite is rapidly destroyed when it comes into contact with organic and inorganic substances; it is also a non-volatile substance.

#### Indirect exposure of persons through the environment (oral route)

The hypochlorite does not reach the environment through the wastewater treatment system as the rapid transformation of the applied hypochlorite (understood as free available chlorine) in the treatment plant ensures there is no possible human exposure to the hypochlorite. In recreational areas located near hypochlorite-treated wastewater discharge points, the potential for exposure to hypochlorite from wastewater treatment is again negligible as there is no discharge of unreacted hypochlorite.

Given the chemical-physical characteristics of hypochlorite, no exposure through the food chain is expected to occur. No indirect exposure to hypochlorite via the environment is therefore expected.

### 3.2. Human health

The Advanced Reach Tool 1 model was used. (see in detail the inputs for the exposure calculation in Appendix 3, at the end of this document).

Route of exposure	PROC	Concentration of sodium hypochlorite	Risk Characterization Ratio (RCR)		
		Value	Inhalation	Dermal	Combined
Long-term exposure, local, inhalation	PROC5	1.00 mg/m <sup>3</sup>	0.65	Not applicable	Not applicable
Long-term exposure, local, inhalation	PROC9	1.10 mg/m <sup>3</sup>	0.71	Not applicable	Not applicable
Long-term exposure, local, inhalation	PROC10	1.20 mg/m <sup>3</sup>	0.77	Not applicable	Not applicable
Long-term exposure, local, inhalation	PROC11	1.00 mg/m <sup>3</sup>	0.65	Not applicable	Not applicable
Long-term exposure, local, inhalation	PROC13	1.20 mg/m <sup>3</sup>	0.77	Not applicable	Not applicable
Long-term exposure, local, inhalation	PROC15	0.85mg/m <sup>3</sup>	0.55	Not applicable	Not applicable

## SECTION 4: GUIDANCE FOR END USERS TO ASSESS WHETHER THEY COMPLY WITH THE EXPOSURE SCENARIO

Guidance is based on assumed operating conditions which may not be applicable to all sites. Thus, scaling may be necessary to define appropriate site-specific risk management measures. If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional risk management measures or a site-specific CSA (chemical safety assessment) is required.

## APPENDIX 1 - Qualitative evaluation - Human health

### Qualitative assessment of exposure to a substance classified as R34 (Causes burns) and R37 (Irritating to respiratory system), or H314 (Causes severe skin burns and eye damage) and H335 (May cause respiratory irritation).

In the absence of dose-response data with respect to corrosion (R34 or H314) or irritation (R37 or H335) of the respiratory system, in accordance with R8 (R.8.6), a qualitative approach is adopted to assess exposure to a corrosive substance. Exposure must therefore be minimised using the appropriate general risk management measures given below (ECHA Technical Guidance Part E, Table E.3-1). When these risk management measures and operating conditions are applied, the risk of respiratory system exposure to corrosive and irritant substances is controlled.

### General risk management measures for R34 and R37 or H314 and H335 classified substances (ECHA Technical Guidance Part E - Table E3-1)

#### *Risk management measures and operational conditions*

##### GENERAL

adequate containment.  
Minimize the number of operators involved.  
Process segregation.  
Effective extraction of the contaminant.  
Good standard of general ventilation.  
Minimization of manual phases.  
Avoid contact with contaminated tools and objects.  
Regular cleaning of equipment and working air.  
Onsite management/supervision to check that the risk management measures are being used and followed correctly.  
Staff training on best practices.  
Good standard of personal hygiene.

##### PERSONAL PROTECTIVE EQUIPMENT

Gloves suitable for the substance/application.  
Covering of the skin made with an adequate material against the possibility of contact with substances.  
Respirator appropriate for substance/application.  
Optional face shield.  
Eye protection.

## APPENDIX 2 - Qualitative evaluation - Environment

### Water and sediment compartment

Hypochlorite emissions to the environment from production processes are minor. The free available chlorine (FAC) in the effluent is generally measured as total residual chlorine (TRC), but it is not possible to distinguish how much refers to hypochlorite and how much to other oxidising species in the same effluent. TRC is the sum of the free available chlorine (HOCl, FAC) and combined available chlorine (RH<sub>2</sub>Cl, CAC). For sites reporting TRC levels in the effluent purely as information on the dilution factor set by the receiving body, initial local PEC values of from < 0.000006 to 0.07 mg/l have been measured. TRC values were not, however, considered applicable due to the immediate subsequent reaction with the oxidisable material present in the receiving waters, whereas any FAC residue is immediately eliminated in the receiving waters, with decay rates increasing as the discharged concentrations increase. The measured TRC values are not, therefore, directly applicable for hypochlorite exposure assessment. Rather than using the measured TRC values, FAC values were instead used to determine the PECs (predicted environmental concentrations).

In practice, hypochlorous/hypochlorite acid (below 10-35 mg/L as FAC, Vandepitte and Schowanek, 2007) do not remain in the sewer system for more than one hour after their addition. No volatilisation of the hypochlorous acid/hypochlorite is expected during sewage treatment. The FAC concentration at the end of the sewer system is estimated to be negligible with, as a worst case, a final PEC value of 1.0E-13 mg/L (Vandepitte and Schowanek, 2007). (NB: these estimated concentrations have a large margin of uncertainty but are still well below the aquatic PNEC). Although the decay of hypochlorite in rivers and the sea is lower than in the sewer system, the PEC values derived from the FAC values were considered not to differ significantly from the estimated worst case.

Since hypochlorite is rapidly destroyed in contact with organic and inorganic materials, exposures in sediments are not expected.

### Terrestrial compartment (including secondary poisoning)

Possible routes of soil exposure to HOCl are through contaminated sludge or by direct application of treated water. As can be calculated with Vandepitte and Schowanek's model (for more information, refer to the European evaluation of sodium hypochlorite, 1997), it is evident that the concentrations of available HOCl in domestic sewage discharges are completely destroyed in the sewer system before reaching activated sludge treatment. HOCl is also a highly soluble molecule and is not likely to be absorbed on activated sludge. There is therefore no evidence that HOCl has the potential to contaminate activated sludge. The contamination of soils with HOCl-polluted sludge can therefore be excluded. It is also thought that secondary poisoning is not possible, as hypochlorite is quickly destroyed on contact with organic and inorganic material.

### Atmospheric compartment

Hypochlorite solutions are not volatile, therefore there is no potential for airborne dispersion. Moreover, methods for determining the effects of chemicals deriving from atmospheric contamination have not yet been well developed, with the exception of inhalation studies in mammals. The methodology used to assess the hazard (and for subsequent risk characterisation) from chemicals in water and soil cannot therefore be applied to the atmosphere (ECHA CSA Part B, 2008).

### APPENDIX 3 - ART Advanced Reach Tool level 2 - Values entered for the evaluation of inhalation

#### **Contributing scenario: PROC1 industrial**

Exposure duration (min): 480  
Product type: liquid  
Process temperature: 15-25°C  
Vapor pressure at process temperature: 2500Pa  
%: <25  
Near field CV / Far CL: CL  
Activity class: Activities with open containers  
Activity subclass: Activities with open containers: open area <0.1m²  
Primary control measures: none  
Secondary control measures: High level of containment  
Segregation: none  
Personal protection: none  
Environment cleaning: Yes  
Indoor/Outdoor: Inside  
Room size: Every type  
Ventilation Rate: 3 refills per hour

#### **Contributing scenario: PROC2 industrial**

Exposure duration (min): 420  
Product type: liquid  
Process temperature: 15-25°C  
Vapor pressure at process temperature: 2500Pa  
%: <25  
Near field CV / Far CL: CL  
Activity class: Activities with open containers  
Activity subclass: Activities with open containers: open area <0.1m²  
Primary control measures: none  
Secondary control measures: Low level of containment  
Segregation: none  
Personal protection: none  
Environment cleaning: Yes  
Indoor/Outdoor: Inside  
Room size: Every type  
Ventilation Rate: 3 refills per hour

#### **Contributing scenario: PROC2 industrial**

Activity number: 2  
Exposure duration (min): 60  
Product type: liquid  
Process temperature: 15-25°C  
Vapor pressure at process temperature: 2500Pa  
%: <25  
Near field CV / Far CL: CV  
Activity class: Liquid product transfer 1-10 l/min  
Activity subclass: Falling liquids/handling reducing product/adjacent air contact  
Primary control measures: Localized ventilation/hood  
Secondary control measures: Low level of containment  
Environment cleaning: Yes  
Indoor/Outdoor: Inside  
Room size: Every type  
Ventilation Rate: 3 refills per hour

#### **Contributing scenario: PROC3 industrial**

Exposure duration (min): 420  
Product type: liquid  
Process temperature: 15-25°C  
Vapor pressure at process temperature: 2500Pa  
%: <25  
Near field CV / Far CL: CL  
Activity class: Activities with open containers  
Activity subclass: Activities with open containers: open area <0.1m²  
Primary control measures: none  
Secondary control measures: Low level of containment  
Segregation: none  
Personal protection: none  
Environment cleaning: Yes  
Indoor/Outdoor: Inside  
Room size: Every type  
Ventilation Rate: 3 refills per hour

**Contributing scenario: PROC3 industrial**

Exposure duration (min): 60  
Product type: liquid  
Process temperature: 15-25°C  
Vapor pressure at process temperature: 2500Pa  
%: <25  
Near field CV / Far CL: CV  
Activity class: Liquid product transfer 1-10 l/min  
Activity subclass: Falling liquids/handling reducing product/adjacent air contact  
Primary control measures: Localized ventilation/hood  
Secondary control measures: Low level of containment  
Environment cleaning: Yes  
Indoor/Outdoor: Inside  
Room size: Every type  
Ventilation Rate: 3 refills per hour

**Contributing scenario: PROC4 industrial**

Exposure duration (min): 360  
Product type: liquid  
Process temperature: 15-25°C  
Vapor pressure at process temperature: 2500Pa  
%: <25  
Near field CV / Far CL: CL  
Activity class: Activities with open containers  
Activity subclass: Activities with open containers: open area <0.1m²  
Primary control measures: none  
Secondary control measures: Low level of containment  
Environment cleaning: Yes  
Indoor/Outdoor: Inside  
Room size: Every type  
Ventilation Rate: 3 refills per hour

**Contributing scenario: PROC4 industrial**

Exposure duration (min): 120  
Product type: liquid  
Process temperature: 15-25°C  
Vapor pressure at process temperature: 2500Pa  
%: <25  
Near field CV / Far CL: CV  
Activity class: Liquid product transfer 1-10 l/min  
Activity subclass: Falling liquids/handling reducing product/adjacent air contact  
Primary control measures: Localized ventilation/hood  
Secondary control measures: Low level of containment  
Environment cleaning: Yes  
Indoor/Outdoor: Inside  
Room size: Every type  
Ventilation Rate: 3 refills per hour

**Contributing scenario: PROC5 industrial**

Exposure duration (min): 90  
Product type: liquid  
Process temperature: 15-25°C  
Vapor pressure at process temperature: 2500Pa  
%: <25  
Near field CV / Far CL: CL  
Activity class: Activities with open containers  
Activity subclass: Activities with open containers: open area <0.3m²  
Primary control measures: none  
Secondary control measures: low level of containment  
Environment cleaning: Yes  
Indoor/Outdoor: Inside  
Room size: Every type  
Ventilation Rate: 3 refills per hour

**Contributing scenario: PROC5 industrial**

Exposure duration (min): 390  
Product type: liquid  
Process temperature: 15-25°C  
Vapor pressure at process temperature: 2500Pa  
%: <25  
Near field CV / Far CL: CV  
Activity class: Liquid product transfer 1-10 l/min  
Activity subclass: Falling liquids/handling reducing product/adjacent air contact  
Primary control measures: Localized ventilation/hood  
Secondary control measures: Low level of containment  
Environment cleaning: Yes  
Indoor/Outdoor: Inside  
Room size: Every type  
Ventilation Rate: 3 refills per hour

**Contributing scenario: PROC8a industrial**

Exposure duration (min): 360  
Product type: liquid  
Process temperature: 15-25°C  
Vapor pressure at process temperature: 2500Pa  
%: <25  
Near field CV / Far CL: CV  
Activity class: Liquid product transfer <100 l/min  
Activity subclass: Falling liquids/handling reducing product/adjacent air contact  
Primary control measures: Localized ventilation/hood  
Secondary control measures: Low level of containment  
Environment cleaning: Yes  
Indoor/Outdoor: Inside  
Room size: Every type  
Ventilation Rate: 3 refills per hour

**Contributing scenario: PROC8b industrial**

Exposure duration (min): 360  
Product type: liquid  
Process temperature: 15-25°C  
Vapor pressure at process temperature: 2500Pa  
%: <25  
Near field CV / Far CL: CV  
Activity class: Liquid product transfer <100 l/min  
Activity subclass: Falling liquids/handling reducing product/adjacent air contact  
Primary control measures: Localized ventilation/hood  
Secondary control measures: Low level of containment  
Environment cleaning: Yes  
Indoor/Outdoor: Inside  
Room size: Every type  
Ventilation Rate: 3 refills per hour

**Contributing scenario: PROC9 industrial**

Exposure duration (min): 480  
Product type: liquid  
Process temperature: 15-25°C  
Vapor pressure at process temperature: 2500Pa  
%: <25  
Near field CV / Far CL: CV  
Activity class: Liquid product transfer <100 l/min  
Activity subclass: Falling liquids/handling reducing product/adjacent air contact  
Primary control measures: Localized ventilation/hood  
Secondary control measures: Low level of containment  
Environment cleaning: Yes  
Indoor/Outdoor: Inside  
Room size: Every type  
Ventilation Rate: 1 change per hour



**Contributing scenario: PROC7 industrial**

Exposure duration (min): 240  
Product type: liquid  
Process temperature: 15-25°C  
Vapor pressure at process temperature: 2500Pa  
%: <25  
Near field CV / Far CL: CL  
Activity class: Spray application of liquids  
Activity subclass: Application in every direction; use of slightly compressed air: speed < 3 m<sup>2</sup>/min  
Primary control measures: Localized ventilation/hood  
Secondary control measures: medium level of containment  
Segregation: none  
Personal protection: complete with ventilation  
Environment cleaning: Yes  
Indoor/Outdoor: Inside  
Room size: Every type  
Ventilation Rate: 1 change per hour

**Contributing scenario: PROC10 industrial**

Exposure duration (min): 480  
Product type: liquid  
Process temperature: 15-25°C  
Vapor pressure at process temperature: 2500Pa  
%: <25  
Near field CV / Far CL: CV  
Activity class: Diffusion of liquids  
Activity subclass: Localized ventilation/hood  
Primary control measures: Localized ventilation/hood  
Secondary control measures: medium level of containment  
Environment cleaning: Yes  
Indoor/Outdoor: Inside  
Room size: Every type  
Ventilation Rate: 1 change per hour

**Contributing scenario: PROC13 industrial**

Exposure duration (min): 480  
Product type: liquid  
Process temperature: 15-25°C  
Vapor pressure at process temperature: 2500Pa  
%: <25  
Near field CV / Far CL: CL  
Activity class: Activities with open containers  
Activity subclass: Activities with open containers: surface area > 3m<sup>2</sup>  
Primary control measures: Localized ventilation/hood  
Secondary control measures: medium level of containment  
Segregation: none  
Personal protection: partial with ventilation  
Environment cleaning: Yes  
Indoor/Outdoor: Inside  
Room size: Every type  
Ventilation Rate: 1 change per hour

**Contributing scenario: PROC14 industrial**

Exposure duration (min): 480  
Product type: liquid  
Process temperature: 15-25°C  
Vapor pressure at process temperature: 2500Pa  
%: <25  
Near field CV / Far CL: CL  
Activity class: Handling of contaminated objects  
Activity subclass: Contamination >90%; area 1-3m<sup>2</sup>  
Primary control measures: Localized ventilation/hood  
Secondary control measures: medium level of containment  
Segregation: none  
Personal protection: none  
Environment cleaning: Yes  
Indoor/Outdoor: Inside  
Room size: Every type  
Ventilation Rate: 1 change per hour

**Contributing scenario: PROC15 industrial**

Exposure duration (min): 480  
Product type: liquid  
Process temperature: 15-25°C  
Vapor pressure at process temperature: 2500Pa  
%: <25  
Near field CV / Far CL: CL  
Activity class: Transfer of a liquid product <0.1 l/min  
Activity subclass: Falling liquids/handling reducing product/adjacent air contact  
Primary control measures: Localized ventilation/hood  
Secondary control measures: none  
Segregation: none  
Personal protection: none  
Environment cleaning: Yes  
Indoor/Outdoor: Inside  
Room size: Every type  
Ventilation Rate: 1 change per hour

**Contributing scenario: PROC5 professional**

Exposure duration (min): 180  
Product type: liquid  
Process temperature: 15-25°C  
Vapor pressure at process temperature: 2500Pa  
%: <5  
Near field CV / Far CL: CL  
Activity class: Activities with open containers  
Activity subclass: Activities with open containers: open area <0.3 m<sup>2</sup>  
Primary control measures: none  
Secondary control measures: Low level of containment  
Segregation: none  
Personal protection: none  
Environment cleaning: Yes  
Indoor/Outdoor: Inside  
Room size: Every type  
Ventilation Rate: 1 change per hour

**Contributing scenario: PROC5 professional**

Exposure duration (min): 300  
Product type: liquid  
Process temperature: 15-25°C  
Vapor pressure at process temperature: 2500Pa  
%: <5  
Near field CV / Far CL: CV  
Activity class: Liquid product transfer: 1-10 l/min  
Activity subclass: Falling liquids/spray loading  
Primary control measures: none  
Secondary control measures: Low level of containment  
Environment cleaning: Yes  
Indoor/Outdoor: Inside  
Room size: Every type  
Ventilation Rate: 1 change per hour

**Contributing scenario: PROC9 professional**

Exposure duration (min): 480  
Product type: liquid  
Process temperature: 15-25°C  
Vapor pressure at process temperature: 2500Pa  
%: <5  
Near field CV / Far CL: CV  
Activity class: Transfer of a liquid product <0.1 l/min  
Activity subclass: Falling liquids/spray loading  
Primary control measures: none  
Secondary control measures: Low level of containment  
Environment cleaning: Yes  
Indoor/Outdoor: Inside  
Room size: Every type  
Ventilation Rate: 1 change per hour

**Contributing scenario: PROC10 professional**

Exposure duration (min): 240  
Product type: liquid  
Process temperature: 15-25°C  
Vapor pressure at process temperature: 2500Pa  
%: <5  
Near field CV / Far CL: CV  
Activity class: Diffusion of liquids  
Activity subclass: <1m<sup>2</sup>/hour  
Primary control measures: none  
Secondary control measures: Low level of containment  
Environment cleaning: Yes  
Indoor/Outdoor: Inside  
Room size: Every type  
Ventilation Rate: 3 refills per hour

**Contributing scenario: PROC11 professional**

Exposure duration (min): 60  
Product type: liquid  
Process temperature: 15-25°C  
Vapor pressure at process temperature: 2500Pa  
%: <5  
Near field CV / Far CL: CV  
Activity class: Spray applications of liquids on surfaces  
Activity subclass: Application in all directions, use of lightly compressed air; speed <3m<sup>2</sup>/min  
Primary control measures: none  
Secondary control measures: Low level of containment  
Environment cleaning: Yes  
Indoor/Outdoor: Inside  
Room size: Every type  
Ventilation Rate: 3 refills per hour

**Contributing scenario: PROC13 professional**

Exposure duration (min): 240  
Product type: liquid  
Process temperature: 15-25°C  
Vapor pressure at process temperature: 2500Pa  
%: <5  
Near field CV / Far CL: CL  
Activity class: Activities with open containers  
Activity subclass: Open area >1 m<sup>2</sup>  
Primary control measures: none  
Secondary control measures: Low level of containment  
Environment cleaning: Yes  
Indoor/Outdoor: Inside  
Room size: Every type  
Ventilation Rate: 1 change per hour

**Contributing scenario: PROC15 professional**

Exposure duration (min): 480  
Product type: liquid  
Process temperature: 15-25°C  
Vapor pressure at process temperature: 2500Pa  
%: <5  
Near field CV / Far CL: CL  
Activity class: Transfer of a liquid product, <0.1 l/min  
Activity subclass: Falling liquids/handling reducing product/adjacent air contact  
Primary control measures: none  
Secondary control measures: none  
Segregation: none  
Personal protection: none  
Environment cleaning: Yes  
Indoor/Outdoor: Inside  
Room size: Every type  
Ventilation Rate: 1 change per hour