

acc. to OSHA HCS

Printing date 08/16/2018

Review date 08/16/2018

1 Identification

- **Product identifier**
- **Trade name:** CALION Standard Mix
- **Article number**
NTSSMIX011019
NTSSMIX012019
NTSSMIX031019
NTSSMLX0320
- **Application of the substance / the mixture** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**

PerkinElmer, Inc.
710 Bridgeport Avenue
Shelton, Connecticut 06484 USA
CustomerCareUS@perkinelmer.com
203-925-4600
- **Emergency telephone number:**
CHEMTREC (within US) 800-424-9300
CHEMTREC (from outside US) +1 703-527-3887 (call collect)
CHEMTREC (within AU) +(61)-290372994

2 Hazard(s) identification

- **Classification of the substance or mixture**



Skin Irrit. 2 H315 Causes skin irritation.
Eye Irrit. 2A H319 Causes serious eye irritation.

- **Label elements**
- **GHS label elements**
The substance is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms** GHS07
- **Signal word** Warning
- **Hazard statements**
H315 Causes skin irritation.
H319 Causes serious eye irritation.
- **Precautionary statements**
P264 Wash thoroughly after handling.
P280 Wear protective gloves / eye protection / face protection.
P302+P352 If on skin: Wash with plenty of water.
P321 Specific treatment (see on this label).
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332+P313 If skin irritation occurs: Get medical advice/attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P337+P313 If eye irritation persists: Get medical advice/attention.

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- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**



- **Other hazards**

The product does not contain any organic halogen compounds (AOX), nitrates, heavy metal compounds or formaldehydes.

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization: Mixtures**

- **Description:** Mixture of the substances listed below with nonhazardous additions.

- **Hazardous components:**

68037-59-2	Polydimethylsiloxane (PDMS)	⚠ Skin Irrit. 2, H315; Eye Irrit. 2A, H319	99.0928%
75-35-4	1,1-dichloroethylene	⚠ Flam. Liq. 1, H224 ⚠ Carc. 2, H351 ⚠ Acute Tox. 4, H332	0.1981%

- **Additional Components**

67-64-1	acetone	⚠ Flam. Liq. 2, H225 ⚠ Eye Irrit. 2A, H319; STOT SE 3, H336	0.5025%
1634-04-4	tert-butyl methyl ether	⚠ Flam. Liq. 2, H225 ⚠ Skin Irrit. 2, H315	0.1111%
142-82-5	heptane	⚠ Flam. Liq. 2, H225 ⚠ Asp. Tox. 1, H304 ⚠ Skin Irrit. 2, H315; STOT SE 3, H336	0.0318%
108-87-2	methylcyclohexane	⚠ Flam. Liq. 2, H225 ⚠ Asp. Tox. 1, H304 ⚠ Skin Irrit. 2, H315; STOT SE 3, H336	0.0135%
2037-26-5	(2H8)toluene	⚠ Flam. Liq. 2, H225 ⚠ Repr. 2, H361; STOT RE 2, H373; Asp. Tox. 1, H304 ⚠ Skin Irrit. 2, H315; STOT SE 3, H336	0.0101%













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75-25-2	bromoform  Acute Tox. 3, H331  Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2A, H319	0.0091%
127-18-4	tetrachloroethylene  Carc. 2, H351	0.0087%
79-27-6	1,1,2,2-tetrabromoethane  Acute Tox. 2, H330  Eye Irrit. 2A, H319	0.005%
629-59-4	tetradecane  Asp. Tox. 1, H304  Flam. Liq. 4, H227	0.0049%
119-36-8	methyl salicylate  Flam. Liq. 3, H226  Acute Tox. 4, H302; Eye Irrit. 2A, H319	0.0046%
344-04-7	Bromopentafluorobenzene  Skin Irrit. 2, H315; STOT SE 3, H335  Flam. Liq. 4, H227	0.0045%
827-08-7	1,2-Dibromotetrafluorobenzene  Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335	0.0033%

4 First-aid measures

- **Description of first aid measures**
- **After inhalation:** In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** If symptoms persist consult doctor.
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:** Pick up mechanically.

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· **Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

· **Protective Action Criteria for Chemicals**

· **PAC-1:**

68037-59-2	Polydimethylsiloxane (PDMS)	30 mg/m ³
67-64-1	acetone	200 ppm
75-35-4	1,1-dichloroethylene	45 ppm
1634-04-4	tert-butyl methyl ether	50 ppm
142-82-5	heptane	500 ppm
108-87-2	methylcyclohexane	1200* ppm
2037-26-5	(2H8)toluene	67 ppm
75-25-2	bromoform	1.5 ppm
127-18-4	tetrachloroethylene	35 ppm
79-27-6	1,1,2,2-tetrabromoethane	0.3 ppm
629-59-4	tetradecane	3.1 ppm
119-36-8	methyl salicylate	2.3 ppm

· **PAC-2:**

68037-59-2	Polydimethylsiloxane (PDMS)	330 mg/m ³
67-64-1	acetone	3200* ppm
75-35-4	1,1-dichloroethylene	500 ppm
1634-04-4	tert-butyl methyl ether	570 ppm
142-82-5	heptane	830 ppm
108-87-2	methylcyclohexane	1700* ppm
2037-26-5	(2H8)toluene	560 ppm
75-25-2	bromoform	6.8 ppm
127-18-4	tetrachloroethylene	230 ppm
79-27-6	1,1,2,2-tetrabromoethane	4.3 ppm
629-59-4	tetradecane	34 ppm
119-36-8	methyl salicylate	25 ppm

· **PAC-3:**

68037-59-2	Polydimethylsiloxane (PDMS)	2,000 mg/m ³
67-64-1	acetone	5700* ppm
75-35-4	1,1-dichloroethylene	1,000 ppm
1634-04-4	tert-butyl methyl ether	5300* ppm
142-82-5	heptane	5000* ppm
108-87-2	methylcyclohexane	10000** ppm
2037-26-5	(2H8)toluene	3,700 ppm
75-25-2	bromoform	41 ppm
127-18-4	tetrachloroethylene	1,200 ppm

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79-27-6	1,1,2,2-tetrabromoethane	10 ppm
629-59-4	tetradecane	200 ppm
119-36-8	methyl salicylate	150 ppm

7 Handling and storage

- **Handling:**
- **Precautions for safe handling** No special precautions are necessary if used correctly.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**
The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.
At this time, the remaining constituent has no known exposure limits.

75-35-4 1,1-dichloroethylene

REL See Pocket Guide App.A

TLV Long-term value: 20 mg/m³, 5 ppm

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
- **Breathing equipment:** Not required.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

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· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**



Tightly sealed goggles or safety glasses

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form: Solid material

Color: Light

· **Odor:** Odorless

· **Odor threshold:** Not determined.

· **pH-value:** Not applicable.

· **Change in condition**

Melting point/Melting range: Undetermined.

Boiling point/Boiling range: Undetermined.

· **Flash point:** Not applicable.

· **Flammability (solid, gaseous):** Not determined.

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Explosion limits:**

Lower: Not determined.

Upper: Not determined.

· **Vapor pressure:** Not applicable.

· **Density:** Not determined.

· **Relative density** Not determined.

· **Vapor density** Not applicable.

· **Evaporation rate** Not applicable.

· **Solubility in / Miscibility with**

Water: Not miscible or difficult to mix.

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- **Partition coefficient (n-octanol/water):** Not determined.
- **Viscosity:**
 - Dynamic:** Not applicable.
 - Kinematic:** Not applicable.
- **Solvent content:**
 - Organic solvents:** 0.7 %
 - VOC content:** 0.69 %
- **Other information** No further relevant information available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
 - on the skin:** Irritant to skin and mucous membranes.
 - on the eye:** Irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:
Irritant

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

75-35-4	1,1-dichloroethylene	3
1634-04-4	tert-butyl methyl ether	3
75-25-2	bromoform	3
127-18-4	tetrachloroethylene	2A

- **NTP (National Toxicology Program)**

127-18-4	tetrachloroethylene	R
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- **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

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12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:** Generally not hazardous for water
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
Dispose of container and materials in accordance with local, regional and national regulations.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

· UN-Number	
· DOT, ADR, ADN, IMDG, IATA	Void
· UN proper shipping name	
· DOT, ADR, ADN, IMDG, IATA	Void
· Transport hazard class(es)	
· DOT, ADR, ADN, IMDG, IATA	
· Class	Void
· Packing group	
· DOT, ADR, IMDG, IATA	Void
· Environmental hazards:	Not applicable.
· Special precautions for user	Not applicable.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· UN "Model Regulation":	Non regulated according to above specifications. Void

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15 Regulatory information

· Safety, health and environmental regulations/legislation specific for the substance or mixture

68037-59-2	Polydimethylsiloxane (PDMS)	⚠ Skin Irrit. 2, H315; Eye Irrit. 2A, H319	99.0928%
67-64-1	acetone	⚠ Flam. Liq. 2, H225 ⚠ Eye Irrit. 2A, H319; STOT SE 3, H336	0.5025%
75-35-4	1,1-dichloroethylene	⚠ Flam. Liq. 1, H224 ⚠ Carc. 2, H351 ⚠ Acute Tox. 4, H332	0.1981%

· Sara

· Section 355 (extremely hazardous substances):

None of the ingredients is listed.

· Section 313 (Specific toxic chemical listings):

75-35-4	1,1-dichloroethylene
1634-04-4	tert-butyl methyl ether
75-25-2	bromoform
127-18-4	tetrachloroethylene

· TSCA (Toxic Substances Control Act):

68037-59-2	Polydimethylsiloxane (PDMS)
67-64-1	acetone
75-35-4	1,1-dichloroethylene
1634-04-4	tert-butyl methyl ether
142-82-5	heptane
108-87-2	methylcyclohexane
75-25-2	bromoform
127-18-4	tetrachloroethylene
79-27-6	1,1,2,2-tetrabromoethane
629-59-4	tetradecane
119-36-8	methyl salicylate
344-04-7	Bromopentafluorobenzene

· TSCA new (21st Century Act) (Substances not listed)

68037-59-2	Polydimethylsiloxane (PDMS)
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· Proposition 65

· Chemicals known to cause cancer:

75-35-4	1,1-dichloroethylene
75-25-2	bromoform
127-18-4	tetrachloroethylene

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

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· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogenicity categories**

· **EPA (Environmental Protection Agency)**

67-64-1	acetone	I
75-35-4	1,1-dichloroethylene	C, S (inh.), I (oral)
142-82-5	heptane	D
75-25-2	bromoform	B2
127-18-4	tetrachloroethylene	L

· **TLV (Threshold Limit Value established by ACGIH)**

67-64-1	acetone	A4
75-35-4	1,1-dichloroethylene	A4
1634-04-4	tert-butyl methyl ether	A3
75-25-2	bromoform	A3
127-18-4	tetrachloroethylene	A3

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

75-35-4	1,1-dichloroethylene
127-18-4	tetrachloroethylene

· **National regulations:**

· **Information about limitation of use:**

Workers are not allowed to be exposed to this hazardous material. Exceptions can be made by the authorities in certain cases.

· **Water hazard class:** Generally not hazardous for water.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

Disclaimer

The information provided in this Material Safety Data Sheet is based on our present knowledge, and believed to be correct at the date of publication. However, no representation is made concerning its accuracy and completeness. It is intended as guidance only, and is not to be considered a warranty or quality specification. All materials may present unknown hazards, and should be used with caution. Although certain hazards are described, we cannot guarantee that these are the only hazards which exist. PerkinElmer shall not be held liable for any damage resulting from handling or from contact with the product.

· **Department issuing SDS:** Environmental, Health and Safety

· **Contact:**

Within the USA: 1-(800)-762-4000

Outside the USA: 1-(203)-712-8488

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

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DOT: US Department of Transportation
IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
VOC: Volatile Organic Compounds (USA, EU)
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
Flam. Liq. 1: Flammable liquids – Category 1
Acute Tox. 4: Acute toxicity – Category 4
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A
Carc. 2: Carcinogenicity – Category 2

· *** Data compared to the previous version altered.**

USA