Safety Data Sheet
acc. to OSHA HCS

Printing date 11/29/2016 Reviewed on 11/29/2016

Identification

· **Product identifier**

· ***Trade name:*** **CK NAC SL Reagent 1**

· *Article number:* 77327A / 79327A / CKSL-0850R1 / CKSL-5XXX
· *Synonyms* EON 100 CK R1 / EON 300 CK R1 / CK ENVOY R1 / CK NAC SL R1
· ***Relevant identified uses of the substance or mixture and uses advised against***
· *Application of the substance / the mixture*
Reagent for IN VITRO diagnostic
Product included in kit(s) :
- Kit composed of two reagents : 55327 / 77327 / 79327 / CKSL-0230

· **Details of the supplier of the safety data sheet**
· ***Manufacturer/Supplier:***
ELITech Clinical Systems SAS
Zone Industrielle
61500 Sées • France
Tel : +33 (0)2 33 81 21 00
Fax : +33 (0)2 33 28 77 51
www.elitechgroup.com
MSDS.ECS-SAS@elitechgroup.com

· ***Information department:*** Product safety department
· ***Emergency telephone number:*** Contact your distributor or poison control center in your country.

*
Hazard(s) identification

· **Classification of the substance or mixture**
· ***Classification according to Regulation (EC) No 1272/2008***


GHS08

Repr. 1B H360D May damage the unborn child.

· **Label elements**
· ***Labelling according to Regulation (EC) No 1272/2008*** The product is classified and labeled according to the CLP regulation.
· *Hazard pictograms*


GHS08

· *Signal word* Danger

· *Hazard-determining components of labeling:*
imidazole
· *Hazard statements*
H360D May damage the unborn child.
· *Precautionary statements*
Obtain special instructions before use.
Wear protective gloves/protective clothing/eye protection/face protection.
IF exposed or concerned: Get medical advice/attention.
· ***Additional information:*** Restricted to professional users.

*
Composition/information on ingredients

· **Chemical characterization: Mixtures**
· ***Description:***
Mixture of substances.
Aqueous solution.

· ***Dangerous components:***			
288-32-4	imidazole	Repr. 1B, H360D; Skin Corr. 1C, H314; Acute Tox. 4, H302	< 1.0%
7647-01-0	hydrochloric acid	Met. Corr.1, H290; Skin Corr. 1B, H314; STOT SE 3, H335	< 0.5%

*
First-aid measures

· **Description of first aid measures**
· ***General information:***
Show this safety data sheet to the doctor in attendance.
IF exposed or concerned: Get medical advice/attention.
Take off contaminated clothing and wash it before reuse.
· ***After inhalation:***
Supply fresh air.
Move out of dangerous area.

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If required, provide artificial respiration.
Seek medical advice.
· ***After skin contact:***
Take off contaminated clothing and wash before reuse.
Rinse with water.
Seek medical advice.
· ***After eye contact:***
Protect unharmed eye.
Remove contact lenses, if present and easy to do.
Rinse opened eye for several minutes under running water.
Get medical advice/attention.
· ***After swallowing:***
Never give anything by mouth to an unconscious person.
Rinse out mouth.
Get medical advice/attention.
· ***Information for doctor:***
· *Most important symptoms and effects, both acute and delayed* Data not available.
· *Indication of any immediate medical attention and special treatment needed* Data not available.

Fire-fighting measures

· **Extinguishing media**
· ***Suitable extinguishing agents:***
CO_2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Use fire fighting measures that suit the environment.
· **Special hazards arising from the substance or mixture** Dangerous decomposition products may be formed
· **Advice for firefighters**
· ***Protective equipment:*** As in any fire, wear a respiratory protective device, and full protective gear.

*
Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**
Pregnant women should strictly avoid inhalation and contact with the product.
Do not handle until all safety precautions have been read and understood.
Wear protective equipment. Keep unprotected persons away.
Mount respiratory protective device.
Ensure adequate ventilation
Take off contaminated clothing and wash before reuse.
Avoid physical contact with material.
Do not breathe mist/vapours/spray.
Avoid formation of vapour / mist / spray.
· **Environmental precautions:** Prevent seepage into sewage system, workpits and cellars.
· **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, universal binders, sawdust).
Clean the affected area carefully.
Send for recovery or disposal in suitable receptacles.
· **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.

*
Handling and storage

· **Handling:**
· ***Precautions for safe handling***
Pregnant women should strictly avoid inhalation and contact with the product.
Obtain special instructions before use.
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
Take off contaminated clothing and wash before reuse.
Do not eat, drink or smoke when using this product.
Avoid physical contact with material.
Do not breathe mist/vapours/spray.
Avoid formation of vapour / mist / spray.
Observe the warnings on the label.
· ***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:* Store in a cool location.
· *Information about storage in one common storage facility:* Not required.
· *Further information about storage conditions:*
Keep container tightly closed.

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Protect the product from light. Avoid exposure to heat.
· *Recommended storage temperature:* 2-8 °C
· **Specific end use(s)** Data not available.

*
Exposure controls/personal protection

· **Additional information about design of technical systems:** Eyewash fountain and safety shower in the area of storage and use.

· **Control parameters**

· ***Components with limit values that require monitoring at the workplace:***	
7647-01-0 hydrochloric acid	
PEL (USA)	Ceiling limit value: 7 mg/m³, 5 ppm
REL (USA)	Ceiling limit value: 7 mg/m³, 5 ppm
TLV (USA)	Ceiling limit value: 2.98 mg/m³, 2 ppm

· *NOAEL*		
288-32-4 imidazole		
Oral	NOAEL	60 mg/kg (rat)

· *PNECs*	
288-32-4 imidazole	
PNEC (freshwater)	0.13 mg/l
PNEC (marine water)	0.013 mg/l
PNEC Sediment (marine water)	0.034 mg/kg
PNEC (soil)	0.0425 mg/kg
PNEC (STP)	10 mg/l
PNEC Sédiment (eau douce)	0.336 mg/kg
PNEC (freshwater)	1.3 mg/l

· *Additional information:* The lists that were valid during the creation were used as basis.

· **Exposure controls**
· ***Personal protective equipment:***
· *General protective and hygienic measures:*
Pregnant women should strictly avoid inhalation or skin contact.
Obtain special instructions before use.
Take off contaminated clothing and wash before reuse.
The usual precautionary measures for handling chemicals should be followed.
Wash hands before breaks and at the end of work.
Do not eat, drink or smoke when using this product.
Avoid physical contact with material.
Do not breathe mist/vapours/spray.
Avoid formation of vapour / mist / spray.
The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
· *Breathing equipment:*
Under good ventilation/exhaustion at the workplace, the use of these products should not require respiratory protection. If overexposure should occur and ventilation is not adequate to maintain airborne concentrations at acceptable levels, the use of respiratory protection should be evaluated by a qualified professional.
Use suitable respiratory protective device when mist/vapour/spray is formed.
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
Use equipment tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
· *Protection of hands:*


Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
Use equipment tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
· *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:*


Wear face shield/eye protection.

Use equipment tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

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· *Body protection:* Protective work clothing

Physical and chemical properties

· **Information on basic physical and chemical properties**	
· ***General Information***	
· *Appearance:*	
Form:	Liquid
Color:	Colorless
· *Odor:*	Odorless
· *Odor threshold:*	Not determined.
· ***pH-value at 20 °C (68 °F):***	6.1
· ***Change in condition***	
Melting point/Melting range:	Not applicable.
Boiling point/Boiling range:	Not determined.
Solidification point:	Not determined.
· ***Flash point:***	Not applicable.
· ***Flammability (solid, gaseous):***	Not applicable
· ***Ignition temperature:***	Not determined.
· *Decomposition temperature:*	Not determined.
· ***Auto igniting:***	Product is not selfigniting.
· ***Danger of explosion:***	Product does not present an explosion hazard.
· ***Vapor pressure:***	Not determined.
· ***Density:***	
Relative density at 20 °C (68 °F)	1.007 g/cm³ (8.403 lbs/gal)
Vapor density	Not determined.
Evaporation rate	Not determined.
· ***Solubility in / Miscibility with***	
Water:	Miscible
· ***Partition coefficient (n-octanol/water):***	Not determined.
· ***Viscosity:***	
Dynamic:	Not determined.
· **Other information**	No further relevant information available.

*
Stability and reactivity

· **Reactivity** See § Possibility of hazardous reactions.
· **Chemical stability** Stable under recommended storage conditions.
· ***Thermal decomposition / conditions to be avoided:*** No decomposition if used according to specifications.
· **Possibility of hazardous reactions**
No dangerous reactions if used according to specifications.
Sodium azide, contains in the product (<0.1%), can react with copper and lead plumbing to form explosive metal azides. If discharge in the canalisations, rinse with plenty of water.
· **Conditions to avoid** No further relevant information available.
· **Incompatible materials:**
Strong oxidizing agents.
Strong bases.
Sodium azide (26628-22-8) : incompatible with acids, and some metals; forms explosion-sensitive compounds.
· **Hazardous decomposition products:** Dangerous decomposition products may be formed
· **Additional information:** Stable at the recommended storage temperature and if protected from light. Avoid exposure to heat.

*
Toxicological information

· **Information on toxicological effects**
· ***Acute toxicity:*** Based on available data, the classification criteria are not met.

· *LD/LC50 values that are relevant for classification:*

288-32-4 imidazole		
Oral	LD50	880 mg/kg (mouse) 970 mg/kg (rat)
7647-01-0 hydrochloric acid		
Oral	LD50	900 mg/kg (rabbit)
Inhalative	LC50/1h	4.5 mg/l (rat)

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(Contd. of page 4)

26628-22-8 sodium azide		
Oral	LD50	27 mg/kg (mouse)
Dermal	LD50	20 mg/kg (rabbit)
Inhalative	LC50	37 mg/m3 (rat)

· *Primary irritant effect:*
· *on the skin:* Based on available data, the classification criteria are not met.
· *on the eye:* Based on available data, the classification criteria are not met.
· *Sensitization:* Based on available data, the classification criteria are not met.
· ***Additional toxicological information:***
Ingestion of large amount of sodium azide may cause nausea, vomiting and in certain circumstances respiratory difficulties, high pulse rate and/or hypersensitivity.

· *IARC (International Agency for Research on Cancer)*		
7647-01-0	hydrochloric acid	3

· *NTP (National Toxicology Program)* None of the ingredient is listed.
· *CMR effects*
· *Reproductive Effects:*
Repr. 1B
May damage the unborn child.

*
Ecological information

· **Toxicity**
· ***Aquatic toxicity:***
Information on components:

288-32-4 imidazole	
EC50/30min	231 mg/l (Photobacterium phosphoreum)
EC50/48h	341.5 mg/l (Daphnia)
LC50/48h	~ 280 mg/l (Leuciscus idus)
EC50/17h	1200 mg/L (Pseudomonas putida)
IC50/72h	130 mg/L (Desmodesmus subspicatus)
26628-22-8 sodium azide	
EC50/48h	4.2 mg/l (Daphnia)
LC50/96h	0.68 mg/l (Lepomis macrochirus)

· **Persistence and degradability** Data not available.
· **Behavior in environmental systems:**
· ***Bioaccumulative potential*** Data not available.
· ***Mobility in soil*** Data not available.
· **Additional ecological information:**
· ***General notes:***
At present there are no ecotoxicological assessments.
Water hazard class 1 (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
Disposal procedures have to be respected, see Section 13.
· **Other adverse effects** No further relevant information available.

Disposal considerations

· **Waste treatment methods**
· ***Recommendation:*** Disposal must be made according to official regulations.

· **Uncleaned packagings:**
· ***Recommendation:*** Disposal must be made according to official regulations.
· ***Recommended cleansing agent:***
Sodium azide, contained in the product (<0.1%), can react with copper and lead plumbing to form explosive metal azides. If discharge in the canalisations, rinse with plenty of water.
· ***Primary packaging:*** Plastic vial (composed of polyethylene high density)

Transport information

· **UN-Number**	Not applicable.
· ***DOT, ADR, ADN, IMDG, IATA***	-
· **UN proper shipping name**	
· ***DOT, ADR, ADN, IMDG, IATA***	-
· **Transport hazard class(es)**	
· ***DOT, ADR, ADN, IMDG, IATA***	
· *Class*	-

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Trade name: CK NAC SL Reagent 1

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· **Packing group**	
· ***DOT, ADR, IMDG, IATA***	-
· **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":**	-

*
Regulatory information

· ***SARA***

· *Section 302/304 (40CFR355.30 / 40CFR355.40):*	
7647-01-0	hydrochloric acid
26628-22-8	sodium azide

· *Section 313 (Specific toxic chemical listings):* Not regulated.
· ***TSCA (Toxic Substances Control Act):*** This product is regulated by the Food and Drug Administration; it is exempt from requirements of TSCA.
· ***Proposition 65***
· *Chemicals known to cause cancer:* None of the ingredients is listed.
· *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.
· *Chemicals known to cause developmental toxicity:* None of the ingredient is listed.

· ***Carcinogenic categories***
· *EPA (Environmental Protection Agency)* None of the ingredient is listed.

· *TLV (Threshold Limit Value established by ACGIH)*		
7647-01-0	hydrochloric acid	A4
26628-22-8	sodium azide	A4

· *NIOSH-Ca (National Institute for Occupational Safety and Health)* None of the ingredient is listed.
· *OSHA-Ca (Occupational Safety & Health Administration)* None of the ingredient is listed.
· **U. S. State Regulations:**

· ***PA-RTK***	
7647-01-0	hydrochloric acid
26628-22-8	sodium azide

· ***NJ-RTK***	
7647-01-0	hydrochloric acid
26628-22-8	sodium azide

· ***MA-RTK***	
7647-01-0	hydrochloric acid
26628-22-8	sodium azide

· ***RI-RTK***	
7647-01-0	hydrochloric acid
26628-22-8	sodium azide

· **US Federal Regulation** This mixture is a component of an FDA-regulated IN VITRO diagnostic medical device.

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

*
Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· *Relevant phrases*
H290 May be corrosive to metals.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H335 May cause respiratory irritation.
H360D May damage the unborn child.

· **Department issuing SDS:** Product safety department
· **Contact:** Product safety department
· ***Abbreviations and acronyms:***
SVHC : Substances of Very High Concern
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
DOT: US Department of Transportation
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances

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CAS: Chemical Abstracts Service (division of the American Chemical Society)
PNEC: Predicted No-Effect Concentration (REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
NOEC : No Observed Effect Concentration
EC50: Effective concentration, 50 percent
IC50 : Inhibitory concentration, 50 percent.
Met. Corr.1: Corrosive to metals – Category 1
Acute Tox. 4: Acute toxicity – Category 4
Skin Corr. 1B: Skin corrosion/irritation – Category 1B
Skin Corr. 1C: Skin corrosion/irritation – Category 1C
Repr. 1B: Reproductive toxicity – Category 1B
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

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

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Printing date 11/29/2016 Reviewed on 11/29/2016

Identification

· **Product identifier**

· ***Trade name:*** **CK NAC SL Reagent 2**

· *Article number:* 77327B / 79327B / CKSL-0850R2 / CKSL-6XXX
· *Synonyms* EON 100 CK R2 / EON 300 CK R2 / CK ENVOY R2 / CK NAC SL R2
· ***Relevant identified uses of the substance or mixture and uses advised against***
· *Application of the substance / the mixture*
Reagent for IN VITRO diagnostic
Product included in kit(s) :
- Kit composed of two reagents : 55327 / 77327 / 79327 / CKSL-0230

· **Details of the supplier of the safety data sheet**
· ***Manufacturer/Supplier:***
ELITech Clinical Systems SAS
Zone Industrielle
61500 Sées • France
Tel : +33 (0)2 33 81 21 00
Fax : +33 (0)2 33 28 77 51
www.elitechgroup.com
MSDS.ECS-SAS@elitechgroup.com

· ***Information department:*** Product safety department
· ***Emergency telephone number:*** Contact your distributor or poison control center in your country.

*
Hazard(s) identification

· **Classification of the substance or mixture**
· ***Classification according to Regulation (EC) No 1272/2008***


GHS08

Repr. 1B H360D May damage the unborn child.

· **Label elements**
· ***Labelling according to Regulation (EC) No 1272/2008*** The product is classified and labeled according to the CLP regulation.
· *Hazard pictograms*


GHS08

· *Signal word* Danger

· *Hazard-determining components of labeling:*
imidazole
· *Hazard statements*
H360D May damage the unborn child.
· *Precautionary statements*
Obtain special instructions before use.
Wear protective gloves/protective clothing/eye protection/face protection.
IF exposed or concerned: Get medical advice/attention.
· ***Additional information:*** Restricted to professional users.

*
Composition/information on ingredients

· **Chemical characterization: Mixtures**
· ***Description:***
Mixture of substances.
Aqueous solution.

· ***Dangerous components:***			
288-32-4	imidazole	Repr. 1B, H360D; Skin Corr. 1C, H314; Acute Tox. 4, H302	< 1.0%
1310-73-2	sodium hydroxide	Met. Corr.1, H290; Skin Corr. 1A, H314	< 0.5%

*
First-aid measures

· **Description of first aid measures**
· ***General information:***
Show this safety data sheet to the doctor in attendance.
IF exposed or concerned: Get medical advice/attention.
Take off contaminated clothing and wash it before reuse.
· ***After inhalation:***
Supply fresh air.
Move out of dangerous area.

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If required, provide artificial respiration.
Seek medical advice.
· ***After skin contact:***
Take off contaminated clothing and wash before reuse.
Rinse with water.
Seek medical advice.
· ***After eye contact:***
Protect unharmed eye.
Remove contact lenses, if present and easy to do.
Rinse opened eye for several minutes under running water.
Get medical advice/attention.
· ***After swallowing:***
Never give anything by mouth to an unconscious person.
Rinse out mouth.
Get medical advice/attention.
· ***Information for doctor:***
· *Most important symptoms and effects, both acute and delayed* Data not available.
· *Indication of any immediate medical attention and special treatment needed* Data not available.

*
Fire-fighting measures

· **Extinguishing media**
· ***Suitable extinguishing agents:***
CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Use fire fighting measures that suit the environment.
· **Special hazards arising from the substance or mixture**
Dangerous decomposition products may be formed
Nitrogen oxides (NOx)
Carbon oxides (COx)
Phosphorus oxides (POx)
Sodium oxides.
· **Advice for firefighters**
· ***Protective equipment:*** As in any fire, wear a respiratory protective device, and full protective gear.

*
Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**
Pregnant women should strictly avoid inhalation and contact with the product.
Do not handle until all safety precautions have been read and understood.
Wear protective equipment. Keep unprotected persons away.
Mount respiratory protective device.
Ensure adequate ventilation
Take off contaminated clothing and wash before reuse.
Avoid physical contact with material.
Do not breathe mist/vapours/spray.
Avoid formation of vapour / mist / spray.
· **Environmental precautions:** Prevent seepage into sewage system, workpits and cellars.
· **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, universal binders, sawdust).
Clean the affected area carefully.
Send for recovery or disposal in suitable receptacles.
· **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.

*
Handling and storage

· **Handling:**
· ***Precautions for safe handling***
Pregnant women should strictly avoid inhalation and contact with the product.
Obtain special instructions before use.
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
Take off contaminated clothing and wash before reuse.
Do not eat, drink or smoke when using this product.
Avoid physical contact with material.
Do not breathe mist/vapours/spray.
Avoid formation of vapour / mist / spray.
Observe the warnings on the label.
· ***Information about protection against explosions and fires:*** No special measures required.

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Trade name: CK NAC SL Reagent 2

(Contd. of page 2)

· **Conditions for safe storage, including any incompatibilities**
· ***Storage:***
· *Requirements to be met by storerooms and receptacles:* Store in a cool location.
· *Information about storage in one common storage facility:* Not required.
· *Further information about storage conditions:*
Keep container tightly closed.
Protect the product from light. Avoid exposure to heat.
· *Recommended storage temperature:* 2-8 °C
· **Specific end use(s)** Data not available.

*
Exposure controls/personal protection

· **Additional information about design of technical systems:** Eyewash fountain and safety shower in the area of storage and use.

· **Control parameters**

· ***Components with limit values that require monitoring at the workplace:***	
1310-73-2 sodium hydroxide	
PEL (USA)	Long-term value: 2 mg/m³
REL (USA)	Ceiling limit value: 2 mg/m³
TLV (USA)	Ceiling limit value: 2 mg/m³

· *NOAEL*		
288-32-4 imidazole		
Oral	NOAEL	60 mg/kg (rat)

· *PNECs*	
288-32-4 imidazole	
PNEC (freshwater)	0.13 mg/l
PNEC (marine water)	0.013 mg/l
PNEC Sediment (marine water)	0.034 mg/kg
PNEC (soil)	0.0425 mg/kg
PNEC (STP)	10 mg/l
PNEC Sédiment (eau douce)	0.336 mg/kg
PNEC (freshwater)	1.3 mg/l

· *Additional information:* The lists that were valid during the creation were used as basis.

· **Exposure controls**
· ***Personal protective equipment:***
· *General protective and hygienic measures:*
Pregnant women should strictly avoid inhalation or skin contact.
Obtain special instructions before use.
Take off contaminated clothing and wash before reuse.
The usual precautionary measures for handling chemicals should be followed.
Wash hands before breaks and at the end of work.
Do not eat, drink or smoke when using this product.
Avoid physical contact with material.
Do not breathe mist/vapours/spray.
Avoid formation of vapour / mist / spray.
The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
· *Breathing equipment:*
Use suitable respiratory protective device when mist/vapour/spray is formed.
Under good ventilation/exhaustion at the workplace, the use of these products should not require respiratory protection. If overexposure should occur and ventilation is not adequate to maintain airborne concentrations at acceptable levels, the use of respiratory protection should be evaluated by a qualified professional.
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
Use equipment tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
· *Protection of hands:*


Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
Use equipment tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
· *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.

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· *Eye protection:*

Wear face shield/eye protection.

Use equipment tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
· *Body protection:* Protective work clothing

Physical and chemical properties

· **Information on basic physical and chemical properties**	
· ***General Information***	
· *Appearance:*	
Form:	Liquid
Color:	Colorless
· *Odor:*	Odorless
· *Odor threshold:*	Not determined.
· ***pH-value at 20 °C (68 °F):***	8.9
· ***Change in condition***	
Melting point/Melting range:	Not applicable.
Boiling point/Boiling range:	Not determined.
Solidification point:	Not determined.
· ***Flash point:***	Not applicable.
· ***Flammability (solid, gaseous):***	Not applicable
· ***Ignition temperature:***	Not determined.
· *Decomposition temperature:*	Not determined.
· ***Auto igniting:***	Product is not selfigniting.
· ***Danger of explosion:***	Product does not present an explosion hazard.
· ***Vapor pressure:***	Not determined.
· ***Density:***	
Relative density at 20 °C (68 °F)	1.051 g/cm³ (8.771 lbs/gal)
Vapor density	Not determined.
Evaporation rate	Not determined.
· ***Solubility in / Miscibility with***	
Water:	Miscible
· ***Partition coefficient (n-octanol/water):***	Not determined.
· ***Viscosity:***	
Dynamic:	Not determined.
· **Other information**	No further relevant information available.

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Stability and reactivity

· **Reactivity** See § Possibility of hazardous reactions.
· **Chemical stability** Stable under recommended storage conditions.
· ***Thermal decomposition / conditions to be avoided:*** No decomposition if used according to specifications.
· **Possibility of hazardous reactions**
No dangerous reactions if used according to specifications.
Sodium azide, contains in the product (<0.1%), can react with copper and lead plumbing to form explosive metal azides. If discharge in the canalisations, rinse with plenty of water.
· **Conditions to avoid** No further relevant information available.
· **Incompatible materials:**
Strong oxidizing agents, strong acids
Sodium azide (26628-22-8) : incompatible with acids, and some metals; forms explosion-sensitive compounds.
· **Hazardous decomposition products:**
Dangerous decomposition products may be formed
Nitrogen oxides (NOx)
Carbon oxides (COx)
Phosphorus oxides (POx)
Sodium oxides.
· **Additional information:** Stable at the recommended storage temperature and if protected from light. Avoid exposure to heat.

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Toxicological information

· **Information on toxicological effects**
· ***Acute toxicity:*** Based on available data, the classification criteria are not met.

· *LD/LC50 values that are relevant for classification:*		
ATE (Acute Toxicity Estimates)		
Oral	LD50	> 5000 mg/kg

288-32-4 imidazole		
Oral	LD50	880 mg/kg (mouse)
		970 mg/kg (rat)
1310-73-2 sodium hydroxide		
Oral	LD50	2000 mg/kg (rat)
26628-22-8 sodium azide		
Oral	LD50	27 mg/kg (mouse)
Dermal	LD50	20 mg/kg (rabbit)
Inhalative	LC50	37 mg/m3 (rat)

· *Primary irritant effect:*
· *on the skin:* Based on available data, the classification criteria are not met.
· *on the eye:* Based on available data, the classification criteria are not met.
· *Sensitization:* Based on available data, the classification criteria are not met.
· ***Additional toxicological information:***
Ingestion of large amount of sodium azide may cause nausea, vomiting and in certain circumstances respiratory difficulties, high pulse rate and/or hypersensitivity.
· *IARC (International Agency for Research on Cancer)* None of the ingredient is in reportable quantity.
· *NTP (National Toxicology Program)* None of the ingredient is listed.
· *CMR effects*
· *Reproductive Effects:*
Repr. 1B
May damage the unborn child.

*
Ecological information

· **Toxicity**
· ***Aquatic toxicity:***
Information on components:

288-32-4 imidazole	
EC50/30min	231 mg/l (Photobacterium phosphoreum)
EC50/48h	341.5 mg/l (Daphnia)
LC50/48h	~ 280 mg/l (Leuciscus idus)
EC50/17h	1200 mg/L (Pseudomonas putida)
IC50/72h	130 mg/L (Desmodesmus subspicatus)
1310-73-2 sodium hydroxide	
EC50/48h	76 mg/l (Daphnia)
LC50/96h	45.4 mg/l (Onchorhyncus mykiss)
26628-22-8 sodium azide	
EC50/48h	4.2 mg/l (Daphnia)
LC50/96h	0.68 mg/l (Lepomis macrochirus)

· **Persistence and degradability** Data not available.
· **Behavior in environmental systems:**
· ***Bioaccumulative potential*** Data not available.
· ***Mobility in soil*** Data not available.
· **Additional ecological information:**
· ***General notes:***
At present there are no ecotoxicological assessments.
Water hazard class 1 (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
Disposal procedures have to be respected, see Section 13.
· **Other adverse effects** No further relevant information available.

Disposal considerations

· **Waste treatment methods**
· ***Recommendation:*** Disposal must be made according to official regulations.

· **Uncleaned packagings:**
· ***Recommendation:*** Disposal must be made according to official regulations.

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· ***Recommended cleansing agent:***
Sodium azide, contained in the product (<0.1%), can react with copper and lead plumbing to form explosive metal azides. If discharge in the canalisations, rinse with plenty of water.
· ***Primary packaging:*** Plastic vial (composed of polyethylene high density)

Transport information

· **UN-Number**	Not applicable.
· ***DOT, ADR, ADN, IMDG, IATA***	-
· **UN proper shipping name**	
· ***DOT, ADR, ADN, IMDG, IATA***	-
· **Transport hazard class(es)**	
· ***DOT, ADR, ADN, IMDG, IATA***	
· *Class*	-
· **Packing group**	
· ***DOT, ADR, IMDG, IATA***	-
· **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":**	-

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Regulatory information

· ***SARA***

· *Section 302/304 (40CFR355.30 / 40CFR355.40):*	
26628-22-8	sodium azide

· *Section 313 (Specific toxic chemical listings):* Not regulated.
· ***TSCA (Toxic Substances Control Act):*** This product is regulated by the Food and Drug Administration; it is exempt from requirements of TSCA.
· ***Proposition 65***
· *Chemicals known to cause cancer:* None of the ingredients is listed.
· *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.
· *Chemicals known to cause developmental toxicity:* None of the ingredient is listed.

· ***Carcinogenic categories***
· *EPA (Environmental Protection Agency)* None of the ingredient is listed.

· *TLV (Threshold Limit Value established by ACGIH)*		
26628-22-8	sodium azide	A4

· *NIOSH-Ca (National Institute for Occupational Safety and Health)* None of the ingredient is listed.
· *OSHA-Ca (Occupational Safety & Health Administration)* None of the ingredient is listed.
· **U. S. State Regulations:**

· ***PA-RTK***	
1310-73-2	sodium hydroxide
26628-22-8	sodium azide

· ***NJ-RTK***	
1310-73-2	sodium hydroxide
26628-22-8	sodium azide

· ***MA-RTK***	
1310-73-2	sodium hydroxide
26628-22-8	sodium azide

· ***RI-RTK***	
1310-73-2	sodium hydroxide
26628-22-8	sodium azide

· **US Federal Regulation** This mixture is a component of an FDA-regulated IN VITRO diagnostic medical device.

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

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Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· *Relevant phrases*
H290 May be corrosive to metals.

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H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H360D May damage the unborn child.

· **Department issuing SDS:** Product safety department
· **Contact:** Product safety department
· ***Abbreviations and acronyms:***
SVHC : Substances of Very High Concern
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
DOT: US Department of Transportation
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
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)
PNEC: Predicted No-Effect Concentration (REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
NOEC : No Observed Effect Concentration
EC50: Effective concentration, 50 percent
IC50 : Inhibitory concentration, 50 percent.
Met. Corr.1: Corrosive to metals – Category 1
Acute Tox. 4: Acute toxicity – Category 4
Skin Corr. 1A: Skin corrosion/irritation – Category 1A
Skin Corr. 1C: Skin corrosion/irritation – Category 1C
Repr. 1B: Reproductive toxicity – Category 1B

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