



Liq-io concentrate

Code: 0 733 0

Material Safety Data Sheet compliant with Regulation (EC) 2015/830

Version 6.0.0

Revision: 09/02/17

Print Date : 09/02/17

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name **Liq-io concentrate**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the product

**LIQUID ACID
UDDER HYGIENE AFTER MILKING
TEAT DISINFECTION BY DIPPING AND SPRAYING**

1.3. Details of the supplier of the safety data sheet

Company identification

**Manufacturer: HYPRED SAS
55, Boulevard Jules VERGER B.P. 10180
35803 DINARD CEDEX - FRANCE
Tél : 33 2 99 16 50 00
Fax : 33 2 99 16 50 20
e-mail : hypred@hypred.com**

For information regarding this safety data sheet, please contact :
regulatory@hypred.com

1.4. Emergency telephone number

Emergency phone number

**Emergency direct number (24 hours a day, 7 days a week) : (+)1-760-476-3961
Access code : 333021**

**Call your medical practitioner LONDON (Information available at the National Poison Unit - Guy's Hospital)
24 hour poisons information in the UK: 0844 892 0111**

SECTION 2: Hazards identification

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2.1. Classification of the substance or mixture

The mixture meets the classification criteria provided for under Regulation (EC) No 1272/2008.

Serious eyes damages - Category 1

H318: Causes serious eye damage.

Specific target organ toxicant - repeated exposure - Category 2

H373: May cause damage to the thyroid following repeated or prolonged exposure.

2.2. Label elements

Labelling according to 1272/2008/EC Regulation:

Hazard pictograms(s) :



Signal word :

Danger

Contains : Iodine+ Alcohols, C12-C14, ethoxylated

Hazard statement(s) :

H318: Causes serious eye damage.

H373: May cause damage to the thyroid following repeated or prolonged exposure.

Precautionary statement(s) :

P102: Keep out of reach of children.

P260: Do not breathe mist/vapours/spray.

P264: Wash hands thoroughly after handling.

P280: Wear protective gloves/protective clothing/eye protection.

P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310: Immediately call a POISON CENTER or doctor/physician.

P314: Get medical advice/attention if you feel unwell.

P501: Dispose of contents/container in accordance with local/regional/national/international regulations.

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2.3. Other hazards

No additional information available.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable as this involves a mixture.

3.2. Mixtures

Chemical nature of the mixture : LIQUID ACID

Substance(s)	CAS number(s)	EINECS number(s)	No registration REACH	Classification according to Regulation 1272/2008/EC	Type
15% <= Glycerol < 30%	56-81-5	200-289-5		Not classified	(2)
10% <= Alcohols, C12-C14, ethoxylated < 25%	68439-50-9			Eye Dam. 1 H318 Acute Tox. 4 (oral) H302 Aquatic Chronic 3 H412	(1)
1% <= Iodine < 5%	7553-56-2	231-442-4	01-2119485285-30	Acute Tox. 4 (oral) H302 Acute Tox. 4 (dermal) H312 Acute Tox. 4 (inhalation) H332 Skin Irrit. 2 H315 Eye Irrit. 2 H319 STOT SE 3 H335 STOT RE 1 H372 Aquatic Acute 1 H400 M Factor (Acute) 1	(1) (2)
1% <= Sodium iodide < 5%	7681-82-5	231-679-3	01-2119966138-29	Eye Irrit. 2 H319 STOT SE 3 H335 Skin Irrit. 2 H315	(1)

Type

(1) : Substance classified as hazardous for health and/or the environment

(2) : Substance with an exposure limit at the work station.

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Substance of very high concern candidate for the authorisation procedure:

- (3) : Substance considered as PBT (persistent, bioaccumulable, toxic)
- (4) : Substance considered as vPvB (very persistent, very bioaccumulable)
- (5) : Substance considered as carcinogenic category 1A
- (6) : Substance considered as carcinogenic category 1B
- (7) : Substance considered as mutagenic category 1A
- (8) : Substance considered as mutagenic category 1B
- (9) : Substance considered as reprotoxic category 1A
- (10) : Substance considered as reprotoxic category 1B
- (11) : Substance considered as endocrine disrupter

Full text of H- and EUH- phrases : see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General indications:

Take the contaminated clothes and shoes off immediately. Wash them before wearing them again.
In case of faintness , get medical advice/attention. Show this safety data sheet to the doctor.

In the event of inhalation :

Bring to fresh air.

In the event of contact with the skin :

Wash with water.

In the event of contact with the eyes :

Rinse at once with a soft stream of water for at least 15 minutes, eyes wide open.
Remove contact lenses if present and easy to do. Continue rinsing.
Immediately call a POISON CENTER or doctor/physician.

In the event of ingestion :

Rinse mouth.
Do NOT induce vomiting.
Get medical advice.

4.2. Most important symptoms and effects, both acute and delayed

Skin contact : Liq-io concentrate is not regarded as a mix which is irritating to the skin.

Eye contact : Causes serious eye damage.

Ingestion : May cause damage to the thyroid following repeated or prolonged exposure.

Inhalation : No data available.

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4.3. Indication of any immediate medical attention and special treatment needed

Treatments : Symptomatic treatment

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media :

Water, powder extinguisher, foam, carbon dioxide.

Agents compatible with other products involved into fire.

Unsuitable extinguishing media :

None from our knowledge.

5.2. Special hazards arising from the substance or mixture

Liq-io concentrate is non-flammable.

5.3. Advice for firefighters

Wear independent respiratory equipment and protective suit.

Collect contaminated firefighting water separately, must not be discharged into the drains.

Keep containers cool by spraying with water if exposed to fire.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel :

Evacuate non-essential staff and those not equipped with individual protection apparatus.

6.1.2. For emergency responders :

Evacuate the personnel to a safe location.

Keep people upwind and away from the location of the flow/leak.

Use personal protection equipment.

6.2. Environmental precautions

Do not discharge the product directly to sewer or to environment.

6.3. Methods and material for containment and cleaning up

Small spillage :

Wash with plenty of water.

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Large spillage :

Mark out, soak up with an inert absorbant and pump in an emergency tank.
Keep in suitable, properly labelled and closed containers for disposal.
Never return spills in original containers for re-use.

6.4. Reference to other sections

Respect protective measures presented at heading 8.
Refer to section 13 for the elimination.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Do not eat, drink or smoke in work area. Avoid projections during use.
Do not breathe mist/vapours/spray.

7.2. Conditions for safe storage, including any incompatibilities

7.2.1. Storage :

Do not store below the point of freezing.
Keep only in the original container.
Keep container closed.

7.2.2. Packaging or wrapping materials :

High density polyethylene recommended.

7.3. Specific end use(s)

Liq-io concentrate is for use as a biocide.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limit values :

Substance	Country	Type	Value	Unit	Comments	source
Glycerol	GBR	OEL 8h	10	mg/m ³		International limit values for chemical agents
Iodine	GBR	OEL Short term	0,1	ppm		International limit values for chemical agents
			1,1	mg/m ³		International limit values for chemical agents

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8.2. Exposure controls

According to the requirements of Directive 98/24 /EC, the employer is required to conduct a risk assessment and implement appropriate risks management measures.

* For any situation where the absence of risk is not proven, he must consider the substitution or reduction of risk by improving in priority processes used and collective protection measures. The effectiveness of the solutions implemented will be checked by measurement in comparison to the statutory limit values for substances defined in Section 8.1.

* If the risk remains after these corrective actions, he must always check by routinely measuring compliance with regulatory OEL if they exist in section 8.1 and apply all the individual protective measures given in section 8.2.

* When formalized risk assessment indicates a low risk to workers' health, control of compliance with regulatory OEL may not be considered and all individual protection measures is not always mandatory.

8.2.1. Appropriate engineering controls :

Ensure adequate ventilation.

Apply the necessary technical measures to comply with the professional exposure limit values.

8.2.2. Individual protection measures, such as personal protective equipment :

Eye/face protection :

Wear safety goggles compliant with standard EN 166.



Hand protection :

Wear protective gloves with chemical resistance.



Skin protection :

Wear boots and a protective cloth with chemical resistance.



Respiratory protection :

No special protection measure is required.

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Thermal hazards :

Not applicable

Health measures :

After using, wash systematically all personal protective equipment.

8.2.3. Environmental exposure controls :

Do not discharge the product directly to sewer or to environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Opaque homogeneous liquid
Colour	brown
Odour	Characteristic
Odour threshold	Not available
Pure pH	4±0.7
pH value at 10g/l	Not available
Freezing point :	-10 °C
Boiling point	Not available
Flash point	Not applicable
Evaporation rate:	Not available
Flammability	Not applicable
Vapour pressure	Not available
Vapour density	Not available
Mass density	1.11±0.01 g/cm ³
Relative density	1.11±0.01
Solubility in water	Soluble in water in all proportions
Partition coefficient: n-octanol/water	Not applicable
Auto-ignition temperature	Not applicable
Decomposition temperature	Not available
Viscosity (20°C, spindle S00, 6 r/mn)	89±10 cPo
Explosive properties	Not applicable
Oxidising properties	Not applicable

9.2. Other information

No additional information.

SECTION 10: Stability and reactivity

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10.1. Reactivity

None under normal conditions of use.

10.2. Chemical stability

Stable in the recommended storage and handling conditions.

10.3. Possibility of hazardous reactions

None to our knowledge.

10.4. Conditions to avoid

Storage below the freezing point.

10.5. Incompatible materials

None to our knowledge.

10.6. Hazardous decomposition products

None to our knowledge in standard conditions of use.

These data are given for the concentrated mixture. The use of the mixture under its diluted form must be performed in conformity with data given by the technical data sheet and the technical adviser.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Substance-related data:

Acute toxicity

Iodine : LD 50 - oral rat 315 mg/kg. - MSDS supplier

Sodium iodide (99%) : LD 50 - oral rat 4,340 mg/kg. - MSDS supplier

Sodium iodide (99%) : LD 50 - oral mouse 1,000 mg/kg. - MSDS supplier

Iodine : LD 50 - dermal rabbit 1,425 mg/kg. - MSDS supplier

Iodine : LC 50 - inhalation - 4h rat (OECD 403): 4.588 mg/L. - Dust - MSDS supplier

Alcohols, C12-C14, ethoxylated : LD 50 - oral rat 300 - 2,000 mg/kg. - MSDS supplier

Skin corrosion/irritation

Iodine : Skin irritation . Irritating - MSDS supplier

Sodium iodide (99%) : Skin irritation . can cause irritation - MSDS supplier

Serious eye damage/eye irritation

Iodine : Eye irritation . Irritating - MSDS supplier

Sodium iodide (99%) : Eye irritation . Irritating - MSDS supplier

Alcohols, C12-C14, ethoxylated (90%) : Eye irritation . Risk of serious damage of eyes - MSDS supplier

Sodium iodide (99%) : Eye irritation rabbit . Slightly irritating - MSDS supplier

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Sensitisation

Iodine : Skin sensitisation (OECD 429): . Not sensitising - MSDS supplier

Alcohols, C12-C14, ethoxylated (90%) : Sensitisation . Not sensitising - MSDS supplier

Reproductive toxicity

Iodine : NOAEL 10 mg/kg/d. - MSDS supplier

Specific target organ toxicity - single exposure

Sodium iodide (99%) : Respiratory tracts irritation . Can cause an irritation of the mucous membranes. - MSDS supplier

Iodine : Inhalation : . Irritating to respiratory system. - MSDS supplier

Specific target organ toxicity - repeated exposure

Iodine : NOAEL - oral - 100days rat 0.375 mg/kg bw day. Causes damage to the thyroid following repeated or prolonged exposure (STOT-RE Cat. 1). - MSDS supplier

Mix-related data: :

Acute toxicity

LD 50 - oral rat (Sprague-Dawley) (OECD 423): > 2,000 mg/kg. The product has not been tested. The information comes from structure or analogue composition products.

Skin corrosion/irritation

Skin irritation . The mix is not considered to be irritating for the skin under the criteria of Regulation 1272/2008/EC.

Serious eye damage/eye irritation

Ocular corrosivity . Causes serious eye damage according to the criteria of Regulation 1272/2008/EC.

Respiratory or skin sensitisation

Skin sensitisation . The mixture is not considered as a skin sensitizer according to 1272/2008/EC Regulation.

Respiratory sensitization . The mixture is not considered as a respiratory sensitizer according to 1272/2008/EC Regulation.

Mutagenicity

. The classification criteria are not met given the available data.

Carcinogenicity

. The classification criteria are not met given the available data.

Reproductive toxicity

. The classification criteria are not met given the available data.

Specific target organ toxicity - single exposure

. The classification criteria are not met given the available data.

Specific target organ toxicity - repeated exposure

. May cause damage to the thyroid following repeated or prolonged exposure under the criteria of Regulation 1272/2008/EC (STOT-RE Cat. 2).

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Aspiration hazard

. The classification criteria are not met given the available data.

Most important symptoms and effects, both acute and delayed :

Skin contact : Liq-io concentrate is not regarded as a mix which is irritating to the skin.

Eye contact : Causes serious eye damage.

Ingestion : May cause damage to the thyroid following repeated or prolonged exposure.

Inhalation : No data available.

SECTION 12: Ecological information

12.1. à 12.4. Toxicity - Persistence and degradability - Bioaccumulative potential - Mobility in soil

Substance-related data:

Acute toxicity

Iodine : EC 50 - 48h daphnia (*Daphnia magna*) 0.55 mg/L. - MSDS supplier

Iodine : LC 50 - 96h fishes (*Oncorhynchus mykiss*) 1.67 mg/L. - MSDS supplier

Sodium iodide (99%) : LC 50 - 96h fishes (*Oncorhynchus mykiss*) 860 mg/L. - MSDS supplier

Iodine : EC 50 - 72h algae (*Desmodesmus subspicatus*) 0.13 mg/L. - MSDS supplier

Iodine : NOEC - 14days soil 1,000 mg/kg. - MSDS supplier

Degradability

Alcohols, C12-C14, ethoxylated (90%) : Biodegradability . Surfactant(s) contained in this preparation comply with biodegradability criteria as defined in (EC) regulation n° 648/2004 on detergents. - MSDS supplier

ABIOTIC DEGRADABILITY

Iodine : . Fast hydrolysis - MSDS supplier

Bioaccumulation

Sodium iodide (99%) : Log Pow 0.04 . Not bioaccumulative - MSDS supplier

Iodine : Log Pow 2.49 . - MSDS supplier

Mix-related data: :

Acute toxicity

fishes . Not determined

daphnia . Not determined

algae . Not determined

CHRONIC TOXICITY

. No data available.

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Degradability

. No data available.

Bioaccumulation

. No data available.

Mobility

. No data available.

Conclusion :

The mixture is not considered to be dangerous for the environment according to 1272/2008/EC Regulation.

12.5. Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB

12.6. Other adverse effects

No additional information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Treatment of the mixture :

Do not discharge the product directly to sewer or to environment.

Comply with Directive 2008/98/EC of 19/11/2008 amended, relating to waste and to Decision 2000/532/EC (amended ultimately by Decision 2014/955/EC) that establishes a list of hazardous waste that must be taken to an approved centre.

Packaging treatment :

Rinse thoroughly the packaging with water and treat the effluent like wastes.

Comply with Directive 2008/98/EC of 19/11/2008 amended, relating to waste and to Decision 2000/532/EC (amended ultimately by Decision 2014/955/EC) that establishes a list of hazardous waste that must be taken to an approved centre.

SECTION 14: Transport information

ROAD TRANSPORT:

Rail/Route (RID/ADR)

UN no :

UN proper shipping name : Not concerned

Class :

Packing group :

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Hazard code :

Label :

Tunnel code :

Environmental hazard : No

Special precautions for user : No information.

MARITIME TRANSPORT :

IMDG

UN no :

UN proper shipping name : Not concerned

Class :

Packing group :

Marine pollutant : No

Special precautions for user : No information.

EmS number :

Comply with the provisions of the IMDG on the physical separation of materials.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code :

Not concerned

SECTION 15: Regulatory information

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

Regulations relating to the hazards from major accidents :

SEVESO 3 Directive (2012/18/EC) : Not concerned

Regulations relating to the classification, packing and labelling of substances and mixes :

Regulation 1272/2008/EC amended.

Waste regulations :

2008/98/EC Directive amended by 2015/1127/EC Directive - Regulation 1357/2014/EC

Decision 2014/955/EC which establishes the list of hazardous waste.

Protection of workers :

Directive 98/24/EC of 07/04/1998 on the protection of the health and safety of workers from the risks related to chemical agents at work.

Regulation 850/2004/EC on persistent organic pollutants and modifying Directive 79/117/EC : Not applicable

Regulation 1005/2009/EC amended on substances that deplete the ozone layer : Not applicable

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Regulation (EC) 648/2004 :

Not concerned

Comply with national and local legislation.

15.2. Chemical safety assessment

No

SECTION 16: Other information

The safety data sheet is additional to the technical data sheet but does not replace it. The information given here in is to the best of our knowledge correct and is given in good faith. We must also draw the user's attention on potential risks of the product is used for other purposes for which the product is known.

In no way does it exempt users from being aware of and complying with regulations applicable to their activity. It is their sole responsibility to take all necessary precautions in accordance to the usage of the product they are aware of.

Regulations are only stated in order to help users fulfill the duties involved in the use of the product.

This description should not be considered as exhaustive. It does not exempt users from ensuring if other demands need to be complied with-according to other laws than the ones hereby stated and applicable to holding and usage of the product-demands for which they will remain sole responsibility.

Section(s) modified compared with the previous version :

Revision of the safety data sheet according to 2015/830/EC Regulation.

List of H phrases referred to in sections 2 and 3 :

H302 : Harmful if swallowed.

H312 : Harmful in contact with skin.

H315 : Causes skin irritation.

H318 : Causes serious eye damage.

H319 : Causes serious eye irritation.

H332 : Harmful if inhaled.

H335 : May cause respiratory irritation.

H372 : Causes damage to organs through prolonged or repeated exposure.

H400 : Very toxic to aquatic life.

H412 : Harmful to aquatic life with long lasting effects.

Sources of key data used to compile the data sheet :

MSDS supplier

International limit values for chemical agents



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Historical :

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Cancel and replaces previous version 5.0.