



SAFETY DATA SHEET

YaraVita Actisil

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

1.1 Product identifier

Product name : YaraVita Actisil
Product code : PY09CM
Product type : liquid

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

Identified uses
Industrial distribution. Industrial USE to formulate chemical product mixtures. Professional formulation of fertiliser products. Professional USE as fertiliser at Farm - loading and spreading (includes soil conditioning). Professional USE as fertiliser in Greenhouse (e.g. Fertigation, includes pH control of fertiliser solution with acid). Professional USE as liquid fertiliser in open field (e.g. Fertigation). Professional USE as fertiliser - maintenance of equipment.

Uses advised against	: Other non-specified industry
Reason	: Due to lack of related experience or data, the supplier cannot approve this use.

1.3 Details of the supplier of the safety data sheet

Yara Benelux B.V.

Address

Street : Zevenmanshaven
Number : 107
Postal code : 3133 CA
City : Vlaardingen
Country : Netherlands

P.O. Box Address

P.O. Box : 81
Postal code : 3130 AB
City : Vlaardingen
Country : Netherlands

Telephone number : +31 (0) 10 44 53 166
Fax no. : +31 (0) 10 44 53 160
e-mail address of person responsible for this SDS : yaraquest@yara.com

1.4 Emergency telephone number**National advisory body/Poison Center**

Name : Nationaal Vergiftigings Informatie Centrum (alleen voor behandelend arts)
Telephone number : +31 (0) 30 274 88 88
Hours of operation : 24h

Supplier

Telephone number : +31 10 44 53 188
Hours of operation : 24/7

SECTION 2: Hazards identification**2.1 Classification of the substance or mixture**

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification : Met. Corr.1, H290
 Skin Corr./Irrit.1, H314

Classification according to Directive 1999/45/EC [DPD]

Classification : C, R35

See Section 16 for the full text of the R phrases or H statements declared above.
 See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : May be corrosive to metals.
 Causes severe skin burns and eye damage.

Precautionary statements

Prevention : Do not breathe gas or vapour. Wear protective gloves/clothing and eye/face protection. Keep only in original container.

Response :
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.
 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.

Hazardous ingredients : Hydrochloric acid ... %
 calcium chloride

Supplemental label elements : Not applicable.

EU Regulation (EC) No. 1907/2006 (REACH) Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

Special packaging requirements

Containers to be fitted with child-resistant fastenings : Not applicable.

Tactile warning of danger : Not applicable.

2.3 Other hazards

Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII : Not applicable.

Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII : Not applicable.

Other hazards which do not result in classification : None.

SECTION 3: Composition/information on ingredients

Substance/mixture : Mixture

Product / ingredient name	Identifiers	%	Classification		Type
			67/548/EEC	Regulation (EC) No. 1272/2008 [CLP]	
calcium chloride	RRN: 01-2119494219-28 EC: 233-140-8 CAS : 10043-52-4 Index: 017-013-00-2	>=2 - <3	Xi; R36	Eye Dam./Irrit. 2 H319	[1]
Hydrochloric acid ... %	RRN: 01-2119484862-27 EC: 231-595-7 CAS : 7647-01-0 Index: 017-002-01-X	>=2 - <3	C; R34 Xi; R37	Met. Corr. 1 H290 Skin Corr./Irrit. 1B H314 STOT SE 3 H335	[1][2]

Type

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

- [3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
 [4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

See Section 16 for the full text of the R phrases or H statements declared above.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

- | | | |
|-----------------------------------|---|---|
| Eye contact | : | Immediately flush eyes with plenty of water for at least 15 minutes, keeping eyelids open. Check for and remove any contact lenses. Get medical attention immediately. |
| Inhalation | : | Avoid inhalation of vapor, spray or mist. If inhaled, remove to fresh air. Get medical attention immediately. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. |
| Skin contact | : | In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately. Chemical burns must be treated promptly by a physician. |
| Ingestion | : | Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Get medical attention if adverse health effects persist or are severe. |
| Protection of first-aiders | : | No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. |

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

- | | | |
|---------------------|---|---|
| Eye contact | : | Causes serious eye damage. |
| Inhalation | : | Can irritate eyes, nose, mouth and throat. Vapor is strongly irritating to the eyes and respiratory system. |
| Skin contact | : | Causes severe burns. |
| Ingestion | : | May cause burns to mouth, throat and stomach. |

Over-exposure signs/symptoms

- | | | |
|---------------------|---|--|
| Eye contact | : | Adverse symptoms may include the following:
pain
watering
redness |
| Inhalation | : | No specific data. |
| Skin contact | : | Adverse symptoms may include the following: |

pain or irritation
redness
blistering may occur

Ingestion : May cause burns to mouth, throat and stomach.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None identified.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture : In a fire or if heated, a pressure increase will occur and the container may burst. Reacts violently with water. Attacks many metals producing extremely flammable hydrogen gas which can form explosive mixtures with air. Acidic. In a fire, decomposition may produce toxic gases/fumes.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
halogenated compounds
metal oxide/oxides
Avoid breathing dusts, vapors or fumes from burning materials.
In case of inhalation of decomposition products in a fire, symptoms may be delayed.

5.3 Advice for firefighters

Special precautions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

Additional information : Not available.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- 6.2 Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. The spilled material may be neutralized with sodium carbonate, sodium bicarbonate or sodium hydroxide. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.
- 6.4 Reference to other sections** : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Keep away from alkalis. Empty containers retain product residue and can be hazardous. Do not reuse container. Spillages

should be cleaned up promptly to avoid damage to surrounding materials.

Advice on general occupational hygiene

- : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Recommendations

- : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Store in corrosive resistant container with a resistant inner liner. Store locked up. Separate from alkalis. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. Bund storage facilities to prevent soil and water pollution in the event of spillage.

7.3 Specific end use(s)

Recommendations

- : Not available.

Industrial sector specific solutions

- : Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

8.1 Control parameters

Occupational exposure limits

Product / ingredient name	Exposure limit values
Hydrochloric acid ... %	EU OEL (2000-06-01) Time Weighted Average (TWA) 8 mg/m ³ , 5 ppm EU OEL (2000-06-01) Short Term Exposure Limit (STEL) 15 mg/m ³ , 10 ppm MinSZW Wettelijke Grenswaarden (2007-01-01) Time Weighted Average (TWA) 8 mg/m ³ MinSZW Wettelijke Grenswaarden (2007-01-01) Short Term Exposure Limit (STEL) 15 mg/m ³ MinSZW Wettelijke Grenswaarden (2007-01-01) Time Weighted Average (TWA) 8 mg/m ³ MinSZW Wettelijke Grenswaarden (2007-01-01) Short Term Exposure Limit (STEL) 15 mg/m ³ EU OEL (2000-06-01) Time Weighted Average (TWA) 8 mg/m ³ , 5 ppm EU OEL (2000-06-01) Short Term Exposure Limit (STEL) 15 mg/m ³ , 10 ppm

Recommended monitoring procedures

- : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.
- Reference should be made to monitoring standards, such as the following:
- European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy)
 - European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents)
 - European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents)
- Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

Product / ingredient name	Type	Exposure	Value	Population	Effects
calcium chloride	DNEL	Long term Inhalation	5 mg/m ³	Workers	
calcium chloride	DNEL	Short term Inhalation	10 mg/m ³	Workers	
calcium chloride	DNEL	Long term Inhalation	2,5 mg/m ³	Consumers	
calcium chloride	DNEL	Short term Inhalation	5 mg/m ³	Consumers	
Hydrochloric acid ... %	DNEL	Long term Inhalation	8 mg/m ³	Workers	Local
Hydrochloric acid ... %	DNEL	Short term Inhalation	15 mg/m ³	Workers	Systemic

PNECs

Product / ingredient name	Type	Compartment Detail	Value	Method Detail
Hydrochloric acid ... %	PNEC	Marine water	36 µg/l	Assessment Factors
Hydrochloric acid ... %	PNEC	Fresh water	36 µg/l	Assessment Factors
Hydrochloric acid ... %	PNEC	Intermittent release.	45 µg/l	Assessment Factors
Hydrochloric acid ... %	PNEC	Sewage Treatment Plant	36 µg/l	Assessment Factors

8.2 Exposure controls**Appropriate engineering controls**

- : If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Individual protection measures**Hygiene measures**

- : A washing facility or water for eye and skin cleaning purposes should be present.

Eye/face protection	: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. Recommended: Tightly-fitting goggles CEN: EN166
<u>Skin protection</u>	
Hand protection	: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. > 8 hours (breakthrough time): Protective gloves should be worn under normal conditions of use., butyl rubber, Teflon
Body protection	: Personal protective equipment for the body should be selected based on the task being performed and the risks involved.
Other skin protection	: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	: In case of inadequate ventilation wear respiratory protection. Recommended: acid gas filter (Type E)
Environmental exposure controls	: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state	: liquid
Color	: Light Yellow. Transparent Clear.
Odor	: Slight
Odor threshold	: Not determined.
pH	: 0,2

Melting point/freezing point	: Not determined
Initial boiling point and boiling range	: Not determined
Flash point	: Not determined
Evaporation rate	: Not determined
Flammability (solid, gas)	: Non-flammable.

Burning time	: Not determined
Burning rate	: Not determined
Upper/lower flammability or explosive limits	: Lower: Not determined Upper: Not determined
Vapor pressure	: Not determined
Vapor density	: Not determined
Relative density	: Not determined
Bulk density	: Not determined

Density	:	1,118 g/cm ³
Solubility(ies)	:	VERY SOLUBLE IN WATER
Partition coefficient: n-octanol/water	:	Not determined
Auto-ignition temperature	:	Not determined
Viscosity	:	Dynamic: 19,2 mPa.s
		Kinematic: Not determined
Explosive properties	:	None.
Oxidizing properties	:	None.

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

<u>10.1 Reactivity</u>	:	May be corrosive to metals.Expert judgment
<u>10.2 Chemical stability</u>	:	The product is stable.
<u>10.3 Possibility of hazardous reactions</u>	:	Under normal conditions of storage and use, hazardous reactions will not occur.
<u>10.4 Conditions to avoid</u>	:	Avoid contamination by any source including metals, dust and organic materials.
<u>10.5 Incompatible materials</u>	:	Attacks many metals producing extremely flammable hydrogen gas which can form explosive mixtures with air. Reactive or incompatible with the following materials: alkalis metals
<u>10.6 Hazardous decomposition products</u>	:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product / ingredient name	Result	Species	Dose	Exposure	References
calcium chloride					
	LD50 Oral	Rat	2.301 mg/kg OECD 401	-	IUCLID 5
	LD50 Dermal	Rat	> 5.000 mg/kg	-	IUCLID 5
Hydrochloric acid ... %					
	LC50 Inhalation	Rat	45,6 mg/l	0,08 h	
	LC50 Inhalation	Rat	8,3 mg/l	0,5 h	

Conclusion/Summary : No known significant effects or critical hazards.

Irritation/Corrosion

Product / ingredient name	Result	Species	Score	Exposure	Observation	References
calcium chloride	Eyes - Irritant OECD 405	Rabbit			-	IUCLID 5

Conclusion/Summary

- Skin** : Corrosive to the skin.
Eyes : Causes serious eye damage.
Respiratory : May be irritating to the respiratory system.

Sensitization**Conclusion/Summary**

- Skin** : No data available for this end-point, hence this classification is not considered to be applicable.
Respiratory : No data available for this end-point, hence this classification is not considered to be applicable.

Mutagenicity

- Conclusion/Summary** : No known significant effects or critical hazards.

Carcinogenicity

- Conclusion/Summary** : No known significant effects or critical hazards.

Reproductive toxicity

- Conclusion/Summary** : No known significant effects or critical hazards.

Teratogenicity

- Conclusion/Summary** : No known significant effects or critical hazards.

Specific target organ toxicity (single exposure)

Product / ingredient name	Category	Route of exposure	Target organs
Hydrochloric acid ... %	Category 3		Respiratory tract irritation

- Information on the likely routes of exposure** : No known significant effects or critical hazards.

Potential acute health effects

- Inhalation** : Can irritate eyes, nose, mouth and throat. Vapor is strongly irritating to the eyes and respiratory system.
Ingestion : May cause burns to mouth, throat and stomach.
Skin contact : Causes severe burns.
Eye contact : Causes serious eye damage.

Symptoms related to the physical, chemical and toxicological characteristics

- Inhalation** : No specific data.
- Ingestion** : May cause burns to mouth, throat and stomach.
- Skin contact** : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur
- Eye contact** : Adverse symptoms may include the following: pain
watering redness

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

- Potential immediate effects** : No known significant effects or critical hazards.
- Potential delayed effects** : No known significant effects or critical hazards.

Long term exposure

- Potential immediate effects** : No known significant effects or critical hazards.
- Potential delayed effects** : No known significant effects or critical hazards.

Potential chronic health effects

- Conclusion/Summary** : No known significant effects or critical hazards.
- General** : No known significant effects or critical hazards.
- Carcinogenicity** : No known significant effects or critical hazards.
- Mutagenicity** : No known significant effects or critical hazards.
- Teratogenicity** : No known significant effects or critical hazards.
- Developmental effects** : No known significant effects or critical hazards.
- Fertility effects** : No known significant effects or critical hazards.

SECTION 12: Ecological information

12.1 Toxicity

Product / ingredient name	Result	Species	Exposure	References
calcium chloride				
	Acute LC50 4.630 mg/l	Fish - Fish	96 h	IUCLID 5
	Acute EC50 464 mg/l Fresh water	Aquatic invertebrates. Water flea	2 d	J. Fish. Res. Board Can.29(12): 1691-1700
	Acute EC50 1.400 mg/l Fresh water	Aquatic invertebrates. Water flea	2 d	Sci. Total Environ.Suppl: 1159-1164
	Acute LC50 2.400 mg/l OECD 202	Aquatic invertebrates. Daphnia	48 h	IUCLID 5

	Acute NOEC > 1 mg/l	Aquatic invertebrates. Water flea		
Hydrochloric acid ... %				
	Acute LC50 20,5 mg/l Fresh water	Fish - Fish	96 h	
	Acute LC50 0,45 mg/l Fresh water	Aquatic invertebrates. Daphnia	48 h	
	Acute LC50 0,73 mg/l Fresh water	Aquatic plants - Algae	72 h	

Conclusion/Summary : No known significant effects or critical hazards.

12.2 Persistence and degradability

Conclusion/Summary : No known significant effects or critical hazards.

12.3 Bioaccumulative potential

Product / ingredient name	LogPow	BCF	Potential	References
Hydrochloric acid ... %	0,25	-		

Conclusion/Summary : No known significant effects or critical hazards.

12.4 Mobility in soil

Soil/water partition coefficient (KOC) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

PBT : Not applicable.

vPvB : Not applicable.

12.6 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product


Methods of disposal : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.


Hazardous waste : The classification of the product may meet the criteria for a hazardous waste.

Packaging


- Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
- Special precautions** : This material and its container must be disposed of in a safe way.
Care should be taken when handling emptied containers that have not been cleaned or rinsed out.
Empty containers or liners may retain some product residues.
Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information


Regulation: ADR/RID	
14.1 UN number	3264
14.2 UN proper shipping name	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Hydrochloric acid ... %,)
14.3 Transport hazard class(es)	8 
14.4 Packing group	II
14.5 Environmental hazards	No.
14.6 Additional information	: ADR/RID
<u>Hazard identification number</u>	: 80
<u>Limited quantity</u>	: LQ22
<u>Special provisions</u>	: 274
<u>Tunnel code</u>	: (E)

Regulation: ADN	
14.1 UN number	3264
14.2 UN proper shipping name	Corrosive liquid, acidic, inorganic, n.o.s. (Hydrochloric acid ... %,)
14.3 Transport hazard class(es)	8 
14.4 Packing group	II
14.5 Environmental hazards	No.
14.6 Additional information	: ADN
<u>Marine pollutant</u>	: No.

Regulation: IMDG	
14.1 UN number	3264
14.2 UN proper shipping name	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Hydrochloric acid ... %,)
14.3 Transport hazard class(es)	8

	
14.4 Packing group	II
14.5 Environmental hazards	No.
14.6 Additional information	: IMDG
<u>Marine pollutant</u>	: No.
<u>Special precautions for user</u>	: Not applicable.
<u>Emergency schedules (EmS)</u>	: F-A, S-B

Regulation: IATA

14.1 UN number	3264
14.2 UN proper shipping name	Corrosive liquid, acidic, inorganic, n.o.s. (Hydrochloric acid ... %,)
14.3 Transport hazard class(es)	8 
14.4 Packing group	II
14.5 Environmental hazards	No.
14.6 Additional information	: IATA
<u>Marine pollutant</u>	: No.
<u>Special precautions for user</u>	: Not applicable.
<u>Passenger and Cargo Aircraft</u>	
<u>Quantity limitation</u>	: 1.00 L
<u>Packaging instructions</u>	: 851
<u>Cargo Aircraft</u>	
<u>Quantity limitation</u>	: 30.00 L
<u>Packaging instructions</u>	: 855

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

Proper shipping name : Choline chloride solutions
 Ship type : 3
 Pollution category : Z

14.8 IMSBC : Not applicable.

SECTION 15: Regulatory information

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

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorization
Substances of very high concern

Not applicable.

Other EU regulations

Europe inventory : All components are listed or exempted.

Seveso II Directive

This product is not controlled under the Seveso II Directive.

National regulations

Water Discharge Policy (ABM) : Slightly harmful to aquatic organisms., Contains substances that are harmful to the aquatic environment., Abatement effort:, A

Notes : To our knowledge no other country or state specific regulations are applicable.

15.2 Chemical Safety Assessment : This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DNEL = Derived No Effect Level
DMEL = Derived Minimal Effect Level
EUH statement = CLP-specific Hazard statement
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number
PBT = Persistent, Bioaccumulative and Toxic
vPvB = Very Persistent and Very Bioaccumulative
bw = Body weight

Key literature references and sources for data : EU REACH IUCLID5 CSR
Regulation (EC) No 1272/2008 Annex VI
National Institute for Occupational Safety and Health, U.S. Dept. of Health, Education, and Welfare, Reports and Memoranda Registry of Toxic Effects of Chemical Substances
IHS, 4777 Levy Street, St Laurent, Quebec HAR 2P9, Canada.

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Met. Corr. 1 H290 Skin Corr./Irrit. 1 H314	Expert judgment On basis of test data.

Full text of abbreviated H statements : H319 Causes serious eye irritation.
H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.
H314 Causes severe skin burns and eye damage.
H335 May cause respiratory irritation.

Full text of classifications [CLP/GHS] : **Eye Dam./Irrit. 2, H319:** SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
Met. Corr. 1, H290: CORROSIVE TO METALS - Category 1
Skin Corr./Irrit. 1, H314: SKIN CORROSION/IRRITATION -

Category 1

Skin Corr./Irrit. 1B, H314: SKIN CORROSION/IRRITATION

- Category 1B

STOT SE 3, H335: SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) [Respiratory tract irritation] - Category 3

Full text of abbreviated R phrases	:	R34- Causes burns. R35- Causes severe burns. R36- Irritating to eyes. R37- Irritating to respiratory system.
Full text of classifications [DSD/DPD]	:	C - Corrosive Xi - Irritant
Date of printing	:	13.03.2013
Date of issue/ Date of revision	:	08.03.2013
Date of previous issue	:	00.00.0000
Version	:	1.
Prepared by	:	Yara Product Classifications & Regulations.

|| Indicates information that has changed from previously issued version.

Notice to reader

To the best of our knowledge, the information provided in this Safety Data Sheet is accurate as at the date of its issue. The information it contains is being given for safety guidance purposes and relates only to the specific material and uses described in it. This information does not necessarily apply to that material when combined with other material(s) or when used otherwise than as described herein, since all materials may represent unknown hazards and should be used with caution. Final determination of the suitability of any material is the sole responsibility of the user.



**Annex to the extended Safety Data Sheet (eSDS) -
Exposure Scenario:**

Identification of the substance or mixture

Product definition : Mixture

Product name : YaraVita Actisil

Exposure Scenario information : Not yet complete.