

# General Hardness (GH) Test Solution

Chemwatch GHS Safety Data Sheet - (Conforms to Regulation (EC) No 1907/2006, Article 31.)  
Issue Date: 23-Dec-2009  
XC9481SC

Hazard Alert Code: HIGH

CHEMWATCH 4650-37  
Version No:4  
CD 2010/1 Page 1 of 8

## Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

### PRODUCT NAME

General Hardness (GH) Test Solution

### OTHER NAMES

"Solution ID# 3338"

### PRODUCT USE

Hardness test solution for products 58 and 34.

### SUPPLIER

Company: Mars Fishcare Europe

Address:

Parc d' activite la Ravoire

Metz- Tessy

F74371 Pringy

France

Telephone: +33 450 57 20 50

Telephone: Email: reach@rena.fr

Fax: +33 450 57 44 11

Company: Mars Fishcare Inc

Address:

50 East Hamilton Street

Chalfont

PA, 18914

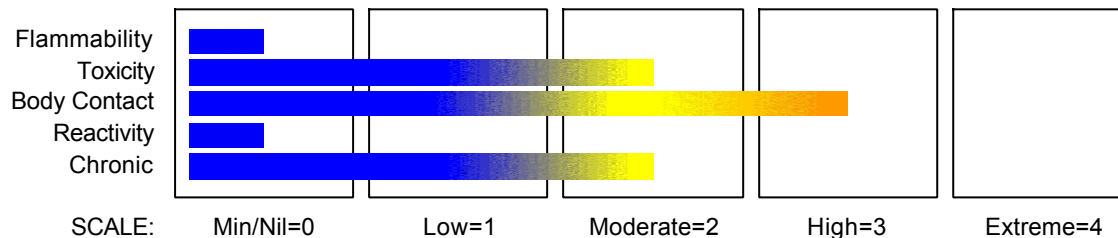
United States of America

Telephone: +1 215 822 8181

Fax: +1 215 822 1906

## Section 2 - HAZARDS IDENTIFICATION

### CHEMWATCH HAZARD RATINGS



### GHS Classification

Acute Aquatic Hazard Category 3

Organ Damage Category 2

Respiratory Irritation Category 3

Serious Eye Damage Category 1

Skin Corrosion/Irritation Category 2

Skin Sensitizer Category 1



### EMERGENCY OVERVIEW

#### HAZARD

DANGER

Determined by Chemwatch using GHS criteria

H335 May cause respiratory irritation.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H373 May cause damage to organs <or state all organs affected, if known> through prolonged or repeated exposure <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.

H318 Causes serious eye damage.

continued...

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XC9481SC

Hazard Alert Code: HIGH

CHEMWATCH 4650-37

Version No:4

CD 2010/1 Page 2 of 8

Section 2 - HAZARDS IDENTIFICATION

H402  
H315 Causes skin irritation.  
H318 Causes serious eye damage.

## PRECAUTIONARY STATEMENTS

Code	Phrase
<b>Prevention</b>	
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P264	Wash thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
<b>Response</b>	
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P304+P340	IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
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.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P314	Get medical advice/attention if you feel unwell.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P363	Wash contaminated clothing before reuse.
<b>Storage</b>	
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

## Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
triethanolamine	102-71-6	10-30
EDTA tetrasodium salt	64-02-8	1-5
water	7732-18-5	>60

## Section 4 - FIRST AID MEASURES

### SWALLOWED

- IF SWALLOWED, REFER FOR MEDICAL ATTENTION, WHERE POSSIBLE, WITHOUT DELAY.
- For advice, contact a Poisons Information Centre or a doctor.
- Urgent hospital treatment is likely to be needed.
- In the mean time, qualified first-aid personnel should treat the patient following observation and employing supportive measures as indicated by the patient's condition.

### EYE

- If this product comes in contact with the eyes:
- Wash out immediately with fresh running water.
- Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.
- Seek medical attention without delay; if pain persists or recurs seek medical attention.
- Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

### SKIN

- If skin contact occurs:
- Immediately remove all contaminated clothing, including footwear.
- Flush skin and hair with running water (and soap if available).
- Seek medical attention in event of irritation.

### INHALED

- If fumes or combustion products are inhaled remove from contaminated area.
- Lay patient down. Keep warm and rested.

continued...

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Hazard Alert Code: HIGH

CHEMWATCH 4650-37

Version No:4

CD 2010/1 Page 3 of 8

Section 4 - FIRST AID MEASURES

- Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.
- Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.

## NOTES TO PHYSICIAN

- Treat symptomatically.

## Section 5 - FIRE FIGHTING MEASURES

### EXTINGUISHING MEDIA

- The product contains a substantial proportion of water, therefore there are no restrictions on the type of extinguishing media which may be used. Choice of extinguishing media should take into account surrounding areas.

Though the material is non-combustible, evaporation of water from the mixture, caused by the heat of nearby fire, may produce floating layers of combustible substances.

In such an event consider:

- foam.

### FIRE FIGHTING

- Alert Fire Brigade and tell them location and nature of hazard.
- Wear breathing apparatus plus protective gloves for fire only.
- Prevent, by any means available, spillage from entering drains or water courses.
- Use fire fighting procedures suitable for surrounding area.

### FIRE/EXPLOSION HAZARD

- Non combustible.
  - Not considered to be a significant fire risk.
  - Expansion or decomposition on heating may lead to violent rupture of containers.
  - Decomposes on heating and may produce toxic fumes of carbon monoxide (CO).
- Decomposition may produce toxic fumes of: carbon dioxide (CO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>), other pyrolysis products typical of burning organic material.  
May emit poisonous fumes.  
May emit corrosive fumes.

### FIRE INCOMPATIBILITY

- None known.

### Personal Protective Equipment

Breathing apparatus.

Gas tight chemical resistant suit.

Limit exposure duration to 1 BA set 30 mins.

## Section 6 - ACCIDENTAL RELEASE MEASURES

### MINOR SPILLS

- Clean up all spills immediately.
- Avoid breathing vapours and contact with skin and eyes.
- Control personal contact by using protective equipment.
- Contain and absorb spill with sand, earth, inert material or vermiculite.

### MAJOR SPILLS

- Moderate hazard.
- Clear area of personnel and move upwind.
- Alert Fire Brigade and tell them location and nature of hazard.
- Wear breathing apparatus plus protective gloves.
- Prevent, by any means available, spillage from entering drains or water course.

Personal Protective Equipment advice is contained in Section 8 of the MSDS.

## Section 7 - HANDLING AND STORAGE

### PROCEDURE FOR HANDLING

- DO NOT allow clothing wet with material to stay in contact with skin.
- DO NOT USE brass or copper containers / stirrers.

continued...

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XC9481SC

Hazard Alert Code: HIGH

CHEMWATCH 4650-37  
Version No:4  
CD 2010/1 Page 4 of 8  
Section 7 - HANDLING AND STORAGE

Alkanolamines and iron may produce unstable complexes. Monoethanolamine (MEA) and iron form a trisethanolamino-iron complex.

- Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.
- Avoid contact with moisture.

## SUITABLE CONTAINER

- Polyethylene or polypropylene container.
- Packing as recommended by manufacturer.
- Check all containers are clearly labelled and free from leaks.

## STORAGE INCOMPATIBILITY

- Avoid strong acids, bases.

## STORAGE REQUIREMENTS

- Store in original containers.
- Keep containers securely sealed.
- Store in a cool, dry, well-ventilated area.
- Store away from incompatible materials and foodstuff containers.

## Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

### EXPOSURE CONTROLS

The following materials had no OELs on our records

- triethanolamine:
- EDTA tetrasodium salt:
- water:

CAS:102- 71- 6

CAS:64- 02- 8 CAS:10378- 23- 1 CAS:13235- 36- 4

CAS:7732- 18- 5

### PERSONAL PROTECTION



### RESPIRATOR

Type AK-P Filter of sufficient capacity

### EYE

- Safety glasses with side shields.
- Chemical goggles.
- Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lens or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59].

### HANDS/FEET

- Wear chemical protective gloves, eg. PVC.
- Wear safety footwear or safety gumboots, eg. Rubber.

### NOTE:

- The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact.
- Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed.

### OTHER

- Overalls.
- P.V.C. apron.
- Barrier cream.
- Skin cleansing cream.

continued...

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Issue Date: 23-Dec-2009  
XC9481SC

Hazard Alert Code: HIGH

CHEMWATCH 4650-37  
Version No:4  
CD 2010/1 Page 5 of 8

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

## ENGINEERING CONTROLS

■ Local exhaust ventilation usually required. If risk of overexposure exists, wear approved respirator.

## Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

### APPEARANCE

Dark green alkaline solution with a slight odour; mixes with water.

### PHYSICAL PROPERTIES

Liquid.  
Mixes with water.

State	Liquid	Molecular Weight	Not Applicable
Melting Range (°C)	Not Available	Viscosity	Not Available
Boiling Range (°C)	Not Available	Solubility in water (g/L)	Miscible
Flash Point (°C)	Not Applicable	pH (1% solution)	Not Available
Decomposition Temp (°C)	Not Available	pH (as supplied)	10.7- 11.3
Autoignition Temp (°C)	Not Applicable	Vapour Pressure (kPa)	Not Available
Upper Explosive Limit (%)	Not Applicable	Specific Gravity (water=1)	1.056
Lower Explosive Limit (%)	Not Applicable	Relative Vapour Density (air=1)	Not Available
Volatile Component (%vol)	Not Available	Evaporation Rate	Not Available

## Section 10 - CHEMICAL STABILITY

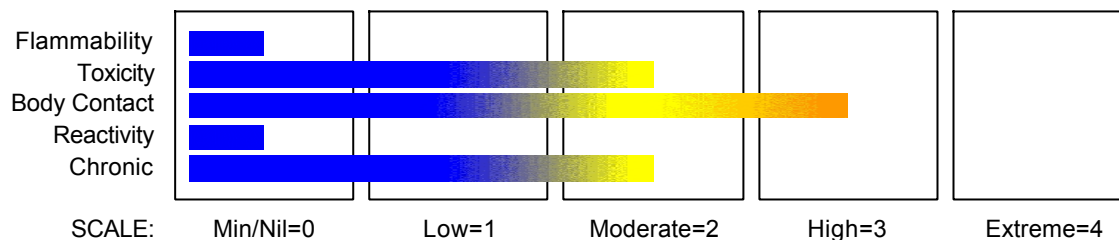
### CONDITIONS CONTRIBUTING TO INSTABILITY

- Presence of incompatible materials.
- Product is considered stable.
- Hazardous polymerisation will not occur.

For incompatible materials - refer to Section 7 - Handling and Storage.

## Section 11 - TOXICOLOGICAL INFORMATION

### CHEMWATCH HAZARD RATINGS



### POTENTIAL HEALTH EFFECTS

#### GHS Hazard Phrases

- May cause respiratory irritation.
- Causes skin irritation.
- May cause an allergic skin reaction.
- May cause damage to organs <or state all organs affected, if known> through prolonged or repeated exposure <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.
- Causes serious eye damage.
- Causes skin irritation.
- Causes serious eye damage.

### TOXICITY AND IRRITATION

■ Not available. Refer to individual constituents.

continued...

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Issue Date: 23-Dec-2009  
XC9481SC

Hazard Alert Code: HIGH

CHEMWATCH 4650-37

Version No:4

CD 2010/1 Page 6 of 8

Section 11 - TOXICOLOGICAL INFORMATION

## Section 12 - ECOLOGICAL INFORMATION

triethanolamine 48 hr EC50 (100) mg/L Common shrimp, sand shrimp Crustacea Source: Experimental

No data

### Ecotoxicity

Ingredient	Persistence: Water/Soil	Persistence: Air	Bioaccumulation	Mobility
triethanolamine	LOW		LOW	HIGH

## Section 13 - DISPOSAL CONSIDERATIONS

- Recycle wherever possible.
- Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified.
- Dispose of by: burial in a land-fill specifically licenced to accept chemical and / or pharmaceutical wastes or incineration in a licenced apparatus (after admixture with suitable combustible material).
- Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed.
- Containers may still present a chemical hazard/ danger when empty.
- Return to supplier for reuse/ recycling if possible.

Otherwise:

- If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill.
- Where possible retain label warnings and MSDS and observe all notices pertaining to the product.

■ According to the European Waste Catalogue, Waste Codes are not product specific but application specific. Waste Codes should be assigned by the User based on the application in which the product is used.

## Section 14 - TRANSPORTATION INFORMATION

### HAZCHEM:

None

NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS: ADR, IATA, IMDG

## Section 15 - REGULATORY INFORMATION



### Annex I of Directive 67/548/EEC

EDTA tetrasodium salt

607- 428- 00- 2

### RISK

Risk Codes

R37/38

R41

R43

R48/20

Risk Phrases

■ Irritating to respiratory system and skin.

■ Risk of serious damage to eyes.

■ May cause SENSITISATION by skin contact.

■ Harmful: danger of serious damage to health by prolonged exposure through inhalation.

continued...

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Issue Date: 23-Dec-2009  
XC9481SC

Hazard Alert Code: HIGH

CHEMWATCH 4650-37

Version No:4

CD 2010/1 Page 7 of 8

Section 15 - REGULATORY INFORMATION

## SAFETY

### Safety Codes

S23	■ Do not breathe gas/fumes/vapour/spray.
S36	■ Wear suitable protective clothing.
S51	■ Use only in well ventilated areas.
S09	■ Keep container in a well ventilated place.
S40	■ To clean the floor and all objects contaminated by this material, use water.
S07	■ Keep container tightly closed.
S13	■ Keep away from food, drink and animal feeding stuffs.
S46	■ If swallowed, IMMEDIATELY contact Doctor or Poisons Information Centre. (show this container or label).

### Annex II of Directive 67/548/EEC: Indications of Danger

Xn Harmful

## REGULATIONS

### Regulations for ingredients

**triethanolamine (CAS: 102-71-6) is found on the following regulatory lists;**

"Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction (English)", "European Chemicals Agency (ECHA) List of substances identified for registration in 2010", "European Customs Inventory of Chemical Substances (English)", "European Union - European Inventory of Existing Commercial Chemical Substances (EINECS) (English)", "European Union (EU) Inventory of Fragrance Ingredients (Perfume and Aromatic Raw Materials)", "European Union (EU) Inventory of Ingredients used in Cosmetic Products", "GESAMP/EHS Composite - GESAMP Hazard Profiles", "IMO IBC Code Chapter 17: Summary of minimum requirements", "IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk", "International Agency for Research on Cancer (IARC) - Agents Reviewed by the IARC Monographs", "International Fragrance Association (IFRA) Survey: Transparency List", "OECD Representative List of High Production Volume (HPV) Chemicals", "The Australia Group Export Control List: Chemical Weapons Precursors"

**EDTA tetrasodium salt (CAS: 64-02-8,10378-23-1,13235-36-4) is found on the following regulatory lists;**

"Chemwatch Candidate List of Very High Concern - List of Substance Subject to Authorization", "European Chemicals Agency (ECHA) List of substances identified for registration in 2010", "European Customs Inventory of Chemical Substances (English)", "European Union - European Inventory of Existing Commercial Chemical Substances (EINECS) (English)", "European Union (EU) Annex I to Directive 67/548/EEC on Classification and Labelling of Dangerous Substances - updated by ATP: 31", "European Union (EU) Inventory of Ingredients used in Cosmetic Products", "European Union (EU) Regulation (EC) No 1272/2008 on Classification, Labelling and Packaging of Substances and Mixtures - Annex VI", "IMO IBC Code Chapter 17: Summary of minimum requirements", "IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk", "International Fragrance Association (IFRA) Survey: Transparency List", "OECD Representative List of High Production Volume (HPV) Chemicals"

**water (CAS: 7732-18-5) is found on the following regulatory lists;**

"EU Directive 2002/72/EC Plastic materials and articles intended to come into contact with foodstuffs - Annex II Section A: List of authorised monomers and other starting substances", "EU Directive 2002/72/EC Plastic materials and articles intended to come into contact with foodstuffs - Annex III Section A Incomplete list of additives fully harmonised at Community level", "EU REACH Regulation (EC) No 1907/2006 - Annex IV - Exemptions from the Obligation to Register in Accordance with Article 2(7)(a) (English)", "European Customs Inventory of Chemical Substances (English)", "European Union - European Inventory of Existing Commercial Chemical Substances (EINECS) (English)", "European Union (EU) Inventory of Ingredients used in Cosmetic Products", "IMO IBC Code Chapter 18: List of products to which the Code does not apply", "International Fragrance Association (IFRA) Survey: Transparency List", "OECD Representative List of High Production Volume (HPV) Chemicals"

**No data for General Hardness (GH) Test Solution (CW: 4650-37)**

This safety data sheet is in compliance with the following EU legislation and its adaptations – as far as applicable - : 67/548/EEC, 1999/45/EC, 76/769/EEC, 98/24/EC, 92/85/EEC, 94/33/EC, 91/689/EEC, 1999/13/EC, as well as the following British legislation:

- The Control of Substances Hazardous to Health Regulations (COSHH) 2002
- COSHH Essentials
- The Management of Health and Safety at Work Regulations 1999

## Section 16 - OTHER INFORMATION

ND	CAS	Suggested codes
Substance		
triethanolamine	102- 71- 6	AUTOID~

continued...

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Issue Date: 23-Dec-2009  
XC9481SC

Hazard Alert Code: HIGH

CHEMWATCH 4650-37  
Version No:4  
CD 2010/1 Page 8 of 8  
Section 16 - OTHER INFORMATION

### INGREDIENTS WITH MULTIPLE CAS NUMBERS

Ingredient Name	CAS
EDTA tetrasodium salt	64-02-8, 10378-23-1, 13235-36-4

■ Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

A list of reference resources used to assist the committee may be found at:  
[www.chemwatch.net/references](http://www.chemwatch.net/references).

■ The (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings.

■ For detailed advice on Personal Protective Equipment, refer to the following EU CEN Standards:

EN 16 Personal eye-protection  
EN 340 Protective clothing  
EN 374 Protective gloves against chemicals and micro-organisms  
EN 13832 Footwear protecting against chemicals  
EN 133 Respiratory protective devices.

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Issue Date: 23-Dec-2009  
Print Date: 2-Mar-2011

# Carbonate Hardness (KH) Test Solution

Chemwatch GHS Safety Data Sheet - (Conforms to Regulation (EC) No 1907/2006, Article 31.)  
Issue Date: 16-Apr-2010  
XC9481SC

Hazard Alert Code: NIL

CHEMWATCH 4650-3  
Version No:4  
CD 2010/1 Page 1 of 5

## Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

### PRODUCT NAME

Carbonate Hardness (KH) Test Solution

### OTHER NAMES

"Solution ID# 3339"

### PRODUCT USE

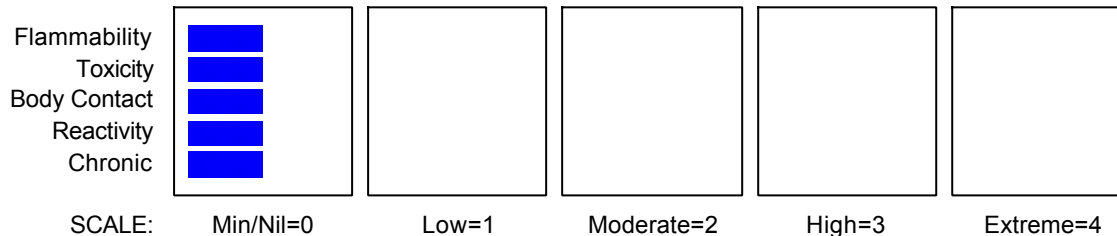
Test solution for products 34P, 58 and 59.

### SUPPLIER

Company: Mars Fishcare Europe  
Address:  
Parc d' activite la Ravoire  
Metz- Tessy  
F74371 Pringy  
France  
Telephone: +33 450 57 20 50  
Telephone: Email: reach@rena.fr  
Fax: +33 450 57 44 11

## Section 2 - HAZARDS IDENTIFICATION

### CHEMWATCH HAZARD RATINGS



### EMERGENCY OVERVIEW

Not hazardous

## Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
non hazardous ingredients		100

## Section 4 - FIRST AID MEASURES

### SWALLOWED

- Immediately give a glass of water.
- First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

### EYE

- If this product comes in contact with eyes:
  - Wash out immediately with water.
  - If irritation continues, seek medical attention.
  - Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

### SKIN

- If skin or hair contact occurs:

continued...

# Carbonate Hardness (KH) Test Solution

Chemwatch GHS Safety Data Sheet - (Conforms to Regulation (EC) No 1907/2006, Article 31.)  
Issue Date: 16-Apr-2010  
XC9481SC

Hazard Alert Code: NIL

CHEMWATCH 4650-3  
Version No:4  
CD 2010/1 Page 2 of 5  
Section 4 - FIRST AID MEASURES

- Flush skin and hair with running water (and soap if available).
- Seek medical attention in event of irritation.

#### INHALED

- If fumes or combustion products are inhaled remove from contaminated area.
- Other measures are usually unnecessary.

#### NOTES TO PHYSICIAN

- Treat symptomatically.

## Section 5 - FIRE FIGHTING MEASURES

#### EXTINGUISHING MEDIA

- There is no restriction on the type of extinguisher which may be used.
- Use extinguishing media suitable for surrounding area.

#### FIRE FIGHTING

- Use water delivered as a fine spray to control fire and cool adjacent area.
- Do not approach containers suspected to be hot.
- Cool fire exposed containers with water spray from a protected location.
- If safe to do so, remove containers from path of fire.

#### FIRE/EXPLOSION HAZARD

- Non combustible.
- Not considered to be a significant fire risk.
- Expansion or decomposition on heating may lead to violent rupture of containers.
- Decomposes on heating and may produce toxic/ irritating fumes.

#### FIRE INCOMPATIBILITY

- None known.

#### PERSONAL PROTECTION

Glasses:  
Chemical goggles.

Gloves:  
When handling larger quantities:

## Section 6 - ACCIDENTAL RELEASE MEASURES

#### MINOR SPILLS

- Clean up all spills immediately.
- Avoid breathing vapours and contact with skin and eyes.
- Control personal contact by using protective equipment.
- Contain and absorb spill with sand, earth, inert material or vermiculite.

#### MAJOR SPILLS

- Clear area of personnel and move upwind.
- Alert Fire Brigade and tell them location and nature of hazard.
- Control personal contact by using protective equipment.
- Prevent spillage from entering drains, sewers or water courses.

**Personal Protective Equipment advice is contained in Section 8 of the MSDS.**

## Section 7 - HANDLING AND STORAGE

#### PROCEDURE FOR HANDLING

- Limit all unnecessary personal contact.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.
- When handling DO NOT eat, drink or smoke.

#### SUITABLE CONTAINER

- Polyethylene or polypropylene container.
- Packing as recommended by manufacturer.
- Check all containers are clearly labelled and free from leaks.

continued...

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Issue Date: 16-Apr-2010  
XC9481SC

Hazard Alert Code: NIL

CHEMWATCH 4650-3

Version No:4

CD 2010/1 Page 3 of 5

Section 7 - HANDLING AND STORAGE

## STORAGE INCOMPATIBILITY

- Avoid contamination of water, foodstuffs, feed or seed.
- Avoid storage with highly alkaline solutions.

## STORAGE REQUIREMENTS

- Store in original containers.
- Keep containers securely sealed.
- Store in a cool, dry, well-ventilated area.
- Store away from incompatible materials and foodstuff containers.
- Segregate from alkalis, oxidising agents and chemicals readily decomposed by acids, i.e. cyanides, sulfides, carbonates.

## Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

### EXPOSURE CONTROLS

#### PERSONAL PROTECTION



#### EYE

- Safety glasses with side shields; or as required,
- Chemical goggles.
- Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lens or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lenses as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59].

#### HANDS/FEET

- Wear general protective gloves, eg. light weight rubber gloves.

#### OTHER

- No special equipment needed when handling small quantities.

#### OTHERWISE:

- Overalls.
- Barrier cream.
- Eyewash unit.

#### ENGINEERING CONTROLS

- General exhaust is adequate under normal operating conditions. If risk of overexposure exists, wear SAA approved respirator.

## Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

### APPEARANCE

Reddish orange solution with no odour; mixes with water.

### PHYSICAL PROPERTIES

Liquid.  
Mixes with water.

State	Liquid	Molecular Weight	Not Applicable
Melting Range (°C)	Not Available	Viscosity	Not Available
Boiling Range (°C)	Not Available	Solubility in water (g/L)	Miscible
Flash Point (°C)	Not Applicable	pH (1% solution)	Not Available
Decomposition Temp (°C)	Not Available	pH (as supplied)	1.20- 1.45
Autoignition Temp (°C)	Not Applicable	Vapour Pressure (kPa)	Not Available

continued...

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XC9481SC

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CHEMWATCH 4650-3

Version No:4

CD 2010/1 Page 4 of 5

### Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Upper Explosive Limit (%)	Not Applicable	Specific Gravity (water=1)	0.997 approx.
Lower Explosive Limit (%)	Not Applicable	Relative Vapour Density (air=1)	Not Available
Volatile Component (%vol)	Not Available	Evaporation Rate	Not Available

### Section 10 - CHEMICAL STABILITY

#### CONDITIONS CONTRIBUTING TO INSTABILITY

- Presence of incompatible materials.
- Product is considered stable.
- Hazardous polymerisation will not occur.

For incompatible materials - refer to Section 7 - Handling and Storage.

### Section 11 - TOXICOLOGICAL INFORMATION

#### CHEMWATCH HAZARD RATINGS

Flammability  
Toxicity  
Body Contact  
Reactivity  
Chronic



SCALE: Min/Nil=0 Low=1 Moderate=2 High=3 Extreme=4

#### POTENTIAL HEALTH EFFECTS

##### GHS Hazard Phrases

#### TOXICITY AND IRRITATION

- Not available. Refer to individual constituents.

### Section 12 - ECOLOGICAL INFORMATION

No data

### Section 13 - DISPOSAL CONSIDERATIONS

- Recycle wherever possible.
- Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified.
- Dispose of by: burial in a land-fill specifically licenced to accept chemical and / or pharmaceutical wastes or incineration in a licenced apparatus (after admixture with suitable combustible material).
- Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed.

■ According to the European Waste Catalogue, Waste Codes are not product specific but application specific. Waste Codes should be assigned by the User based on the application in which the product is used.

continued...

## Carbonate Hardness (KH) Test Solution

Chemwatch GHS Safety Data Sheet - (Conforms to Regulation (EC) No 1907/2006, Article 31.)  
Issue Date: 16-Apr-2010  
XC9481SC

Hazard Alert Code: NIL

CHEMWATCH 4650-3  
Version No:4  
CD 2010/1 Page 5 of 5

### Section 14 - TRANSPORTATION INFORMATION

#### HAZCHEM:

None

NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS: ADR, IATA, IMDG

### Section 15 - REGULATORY INFORMATION

#### RISK

•None under normal operating conditions.

#### REGULATIONS

No data for Carbonate Hardness (KH) Test Solution (CW: 4650-3)

This safety data sheet is in compliance with the following EU legislation and its adaptations – as far as applicable - : 67/548/EEC, 1999/45/EC, 76/769/EEC, 98/24/EC, 92/85/EEC, 94/33/EC, 91/689/EEC, 1999/13/EC, as well as the following British legislation:

- The Control of Substances Hazardous to Health Regulations (COSHH) 2002
- COSHH Essentials
- The Management of Health and Safety at Work Regulations 1999

### Section 16 - OTHER INFORMATION

■ Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

A list of reference resources used to assist the committee may be found at:  
[www.chemwatch.net/references](http://www.chemwatch.net/references).

■ The (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings.

■ For detailed advice on Personal Protective Equipment, refer to the following EU CEN Standards:

- EN 16 Personal eye-protection
- EN 340 Protective clothing
- EN 374 Protective gloves against chemicals and micro-organisms
- EN 13832 Footwear protecting against chemicals
- EN 133 Respiratory protective devices.

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