



Safety Data Sheet

**GREEN
TURTLE**





F A S T H A R D E N E R

Safety Data Sheet dated 28/11/2019, version 1

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

- 1.1. Product identifier
Mixture identification:
Trade name: GREEN TURTLE FAST HARDENER
Trade code: FD3
- 1.2. Relevant identified uses of the substance or mixture and uses advised against
Recommended use:
Industrial use, Professional use, Consumer use
Uses advised against:
None has been described
- 1.3. Details of the supplier of the safety data sheet
HIJOS DE A. FERRER DALMAU, S.A.,
Rosalia de Castro, 21 08025 Barcelona SPAIN
Competent person responsible for the safety data sheet:
jaime@ferrer-dalmau.com
- 1.4. Emergency telephone number
Emergency Tel. +34 934874015 (office hours)

SECTION 2: Hazards identification

- 2.1. Classification of the substance or mixture
EC regulation criteria 1272/2008 (CLP)
-  Warning, Acute Tox. 4, Harmful if swallowed.
 -  Danger, Skin Corr. 1A, Causes severe skin burns and eye damage.
 -  Danger, Eye Dam. 1, Causes serious eye damage.
 -  Warning, Skin Sens. 1, May cause an allergic skin reaction.
- Aquatic Chronic 3, Harmful to aquatic life with long lasting effects.

Adverse physicochemical, human health and environmental effects:
No other hazards

- 2.2. Label elements
Hazard pictograms:



- Danger
Hazard statements:
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H412 Harmful to aquatic life with long lasting effects.
- Precautionary statements:
P102 Keep out of reach of children.
P260 Do not breathe vapours.
P264 Wash with water, Thoroughly after handling.



Safety Data Sheet

**GREEN
TURTLE**

FAST HARDENER

P270 Do not eat, drink or smoke when using this product.

P272 Contaminated work clothing should not be allowed out of the workplace.

P273 Avoid release to the environment.

Special Provisions:

None

Contains

1,3-Benzenedimethanamine

1,6-Hexanediamine, 2,2,4(or 2,4,4)-trimethyl-

3-aminomethyl-3,5,5-trimethylcyclohexylamine

Trimethylhexamethylenediamine

Phenol, styrenated

Special provisions according to Annex XVII of REACH and subsequent amendments:

None

2.3. Other hazards

vPvB Substances: None - PBT Substances: None

Other Hazards:

No other hazards

SECTION 3: Composition/information on ingredients

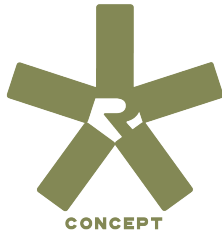
3.1. Substances

N.A.

3.2. Mixtures

Hazardous components within the meaning of the CLP regulation and related classification:

Qty	Name	Ident. Number	Classification
>= 20% - < 25%	1,3- Benzenedimethanamine	CAS: 1477-55-0 EC: 216-032-5 REACH No.: 01- 2119480150-50	3.1/4/Oral Acute Tox. 4 H302 3.1/4/Dermal Acute Tox. 4 H312 3.1/4/Inhal Acute Tox. 4 H332 3.2/1B Skin Corr. 1B H314 3.4.2/1 Skin Sens. 1 H317 4.1/C3 Aquatic Chronic 3 H412
>= 15% - < 20%	1,6-Hexanediamine, 2,2,4(or 2,4,4)-trimethyl-	CAS: 25513-64-8 EC: 247-063-2 REACH No.: 01- 2119560598-25	3.1/4/Oral Acute Tox. 4 H302 3.2/1A Skin Corr. 1A H314 3.3/1 Eye Dam. 1 H318 3.4.2/1 Skin Sens. 1 H317
>= 10% - < 12.5%	3-aminomethyl-3,5,5- trimethylcyclohexylamine	Index number: 612-067-00-9 CAS: 2855-13-2 EC: 220-666-8	3.2/1B Skin Corr. 1B H314 3.4.2/1-1A-1B Skin Sens. 1,1A,1B H317 4.1/C3 Aquatic Chronic 3 H412 3.1/4/Oral Acute Tox. 4 H302 3.1/4/Dermal Acute Tox. 4 H312
>= 3% - < 5%	Trimethylhexamethylened iamine	CAS: 25620-58-0 EC: 247-134-8	3.1/4/Oral Acute Tox. 4 H302 3.2/1B Skin Corr. 1B H314 3.4.2/1 Skin Sens. 1 H317



Safety Data Sheet

**GREEN
TURTLE****FAST HARDENER**

>= 3% - < 5%	Phenol, styrenated	CAS: 61788-44-1 EC: 262-975-0	3.2/2 Skin Irrit. 2 H315 3.4.2/1 Skin Sens. 1 H317 4.1/C2 Aquatic Chronic 2 H411
>= 1% - < 3%	p-toluenesulphonic acid (containing a maximum of 5 % H2SO4)	Index number: 016-030-00-2 CAS: 104-15-4 EC: 203-180-0	3.3/2 Eye Irrit. 2 H319 3.8/3 STOT SE 3 H335 3.2/2 Skin Irrit. 2 H315 Specific Concentration Limits: C >= 20%: STOT SE 3 H335

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

Immediately take off all contaminated clothing.

Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap.

OBTAIN IMMEDIATE MEDICAL ATTENTION.

Wash thoroughly the body (shower or bath).

Remove contaminated clothing immediately and dispose off safely.

After contact with skin, wash immediately with soap and plenty of water.

In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

Protect uninjured eye.

In case of Ingestion:

Do NOT induce vomiting.

Give nothing to eat or drink.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

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

None

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

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Treatment:

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Spray water.

Carbon dioxide (CO₂).

Extinguishing media which must not be used for safety reasons:

None in particular.

5.2. Special hazards arising from the substance or mixture

Do not inhale explosion and combustion gases.

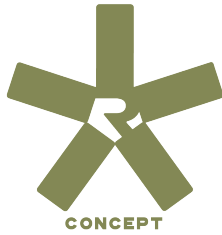
Burning produces heavy smoke.

5.3. Advice for firefighters

Use suitable breathing apparatus .

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.



Safety Data Sheet

**GREEN
TURTLE**

F A S T H A R D E N E R

SECTION 6: Accidental release measures

- 6.1. Personal precautions, protective equipment and emergency procedures
 - Wear personal protection equipment.
 - Remove persons to safety.
 - See protective measures under point 7 and 8.
- 6.2. Environmental precautions
 - Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.
 - Retain contaminated washing water and dispose it.
 - In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.
 - Suitable material for taking up: absorbing material, organic, sand
- 6.3. Methods and material for containment and cleaning up
 - Wash with plenty of water.
- 6.4. Reference to other sections
 - See also section 8 and 13

SECTION 7: Handling and storage

- 7.1. Precautions for safe handling
 - Avoid contact with skin and eyes, inhalation of vapours and mists.
 - Don't use empty container before they have been cleaned.
 - Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.
 - Contaminated clothing should be changed before entering eating areas.
 - Do not eat or drink while working.
 - See also section 8 for recommended protective equipment.
- 7.2. Conditions for safe storage, including any incompatibilities
 - Keep away from food, drink and feed.
 - Incompatible materials:
 - None in particular.
 - Instructions as regards storage premises:
 - Adequately ventilated premises.
- 7.3. Specific end use(s)
 - None in particular

SECTION 8: Exposure controls/personal protection

- 8.1. Control parameters
 - No occupational exposure limit available
 - DNEL Exposure Limit Values
 - N.A.
 - PNEC Exposure Limit Values
 - N.A.
- 8.2. Exposure controls
 - Eye protection:
 - Eye glasses with side protection.
 - Protection for skin:
 - Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.
 - Protection for hands:
 - NBR (nitrile rubber).
 - Respiratory protection:
 - Use adequate protective respiratory equipment.
 - Thermal Hazards:
 - None
 - Environmental exposure controls:
 - None
 - Appropriate engineering controls:
 - None



Safety Data Sheet

**GREEN
TURTLE**

FAST HARDENER

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Method:	Notes:
Appearance and colour:	Liquid, red brown	--	--
Odour:	amine	--	--
Odour threshold:	N.A.	--	--
pH:	8	--	--
Melting point / freezing point:	N.A.	--	--
Initial boiling point and boiling range:	N.A.	--	--
Flash point:	> 100 ° C	--	--
Evaporation rate:	N.A.	--	--
Solid/gas flammability:	N.A.	--	--
Upper/lower flammability or explosive limits:	N.A.	--	--
Vapour pressure:	N.A.	--	--
Vapour density:	N.A.	--	--
Relative density:	0.99 g/cm ³	--	--
Solubility in water:	N.A.	--	--
Solubility in oil:	N.A.	--	--
Partition coefficient (n-octanol/water):	N.A.	--	--
Auto-ignition temperature:	N.A.	--	--
Decomposition temperature:	N.A.	--	--
Viscosity:	714.141 mm ² /s	Kinematic	--
Explosive properties:	N.A.	--	--
Oxidizing properties:	N.A.	--	--

9.2. Other information

Properties	Value	Method:	Notes:
Miscibility:	N.A.	--	--
Fat Solubility:	N.A.	--	--
Conductivity:	N.A.	--	--
Substance Groups relevant properties	N.A.	--	--

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions

10.2. Chemical stability

Stable under normal conditions

10.3. Possibility of hazardous reactions

None

10.4. Conditions to avoid

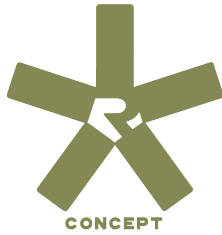
Stable under normal conditions.

10.5. Incompatible materials

None in particular.

10.6. Hazardous decomposition products

None.



Safety Data Sheet

**GREEN
TURTLE**

FAST HARDENER

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological information of the product:

+Green Turtle Fast Hardener

a) acute toxicity

The product is classified: Acute Tox. 4 H302

ATEmix - Oral 1117,25 mg/kg

ATEmix - Dermal 4782,61 mg/kg

ATEmix - Inhalation (Mist) 6,7 mg/l

b) skin corrosion/irritation

The product is classified: Skin Corr. 1A H314

c) serious eye damage/irritation

The product is classified: Eye Dam. 1 H318

d) respiratory or skin sensitisation

The product is classified: Skin Sens. 1 H317

e) germ cell mutagenicity

Not classified

Based on available data, the classification criteria are not met

f) carcinogenicity

Not classified

Based on available data, the classification criteria are not met

g) reproductive toxicity

Not classified

Based on available data, the classification criteria are not met

h) STOT-single exposure

Not classified

Based on available data, the classification criteria are not met

i) STOT-repeated exposure

Not classified

Based on available data, the classification criteria are not met

j) aspiration hazard

Not classified

Based on available data, the classification criteria are not met

Toxicological information of the main substances found in the product:

1,3-Benzenedimethanamine - CAS: 1477-55-0

a) acute toxicity:

Test: LD50 - Route: Oral 930 mg/kg

Test: LD50 - Route: Skin - Species: Rat 2000 mg/kg

Test: LD50 - Route: Skin - Species: Rabbit > 3100 mg/kg

Test: LC50 - Route: Inhalation - Species: Rat 1.34 mg/l - Duration: 4h

Trimethylhexamethylenediamine - CAS: 25620-58-0

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat 910 mg/Kg bw

Phenol, styrenated - CAS: 61788-44-1

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat 2500 mg/kg

Test: LD50 - Route: Skin - Species: Rabbit > 7940 mg/kg

p-toluenesulphonic acid (containing a maximum of 5 % H2SO4) - CAS: 104-15-4

LD50 (RAT) ORAL: 2480 MG/KG

SECTION 12: Ecological information

12.1. Toxicity



Safety Data Sheet

**GREEN
TURTLE**

FAST HARDENER

- Adopt good working practices, so that the product is not released into the environment.
- +Green Turtle Fast Hardener
The product is classified: Aquatic Chronic 3 - H412
- 1,3-Benzenedimethanamine - CAS: 1477-55-0
- a) Aquatic acute toxicity:
Endpoint: EC50 - Species: Algae 12 mg/l - Duration h: 72
- 12.2. Persistence and degradability
None
N.A.
- 12.3. Bioaccumulative potential
Trimethylhexamethylenediamine - CAS: 25620-58-0
Test: Pow- Log 0.77
Phenol, styrenated - CAS: 61788-44-1
Test: Pow- Log - Notes: > 4 (22°C)
- 12.4. Mobility in soil
N.A.
- 12.5. Results of PBT and vPvB assessment
vPvB Substances: None - PBT Substances: None
- 12.6. Other adverse effects
None

SECTION 13: Disposal considerations

- 13.1. Waste treatment methods
Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions.
In so doing, comply with the local and national regulations currently in force.

SECTION 14: Transport information

- 14.1. UN number
ADR-UN Number: 2735
IATA-UN Number: 2735
IMDG-UN Number: 2735
- 14.2. UN proper shipping name
ADR-Shipping Name: POLYAMINES, LIQUID, CORROSIVE, N.O.S.(1,6-Hexanediamine, 2,2,4(or 2,4,4)-trimethyl-, 3-aminomethyl-3,5,5-trimethylcyclohexylamine)
IATA-Shipping Name: POLYAMINES, LIQUID, CORROSIVE, N.O.S.(1,6-Hexanediamine, 2,2,4(or 2,4,4)-trimethyl-, 3-aminomethyl-3,5,5-trimethylcyclohexylamine)
IMDG-Shipping Name: POLYAMINES, LIQUID, CORROSIVE, N.O.S.(1,6-Hexanediamine, 2,2,4(or 2,4,4)-trimethyl-, 3-aminomethyl-3,5,5-trimethylcyclohexylamine)
- 14.3. Transport hazard class(es)
ADR-Class: 8
ADR - Hazard identification number: 80
IATA-Class: 8
IATA-Label: 8
IMDG-Class: 8
- 14.4. Packing group



Safety Data Sheet

**GREEN
TURTLE**

FAST HARDENER

ADR-Packing Group:	II
IATA-Packing group:	II
IMDG-Packing group:	II
14.5. Environmental hazards	
ADR-Environmental Pollutant:	No
IMDG-Marine pollutant:	No
14.6. Special precautions for user	
ADR-Subsidiary risks:	-
ADR-S.P.:	274
ADR-Transport category (Tunnel restriction code):	2 (E)
IATA-Passenger Aircraft:	851
IATA-Subsidiary risks:	-
IATA-Cargo Aircraft:	855
IATA-S.P.:	A3 A803
IATA-ERG:	8L
IMDG-EmS:	F-A , S-B
IMDG-Subsidiary risks:	-
IMDG-Stowage and handling:	Category A
IMDG-Segregation:	SG35
14.7. Transport in bulk according to Annex II of Marpol and the IBC Code	
N.A.	

SECTION 15: Regulatory information

- 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
- Dir. 98/24/EC (Risks related to chemical agents at work)
 - Dir. 2000/39/EC (Occupational exposure limit values)
 - Regulation (EC) n. 1907/2006 (REACH)
 - Regulation (EC) n. 1272/2008 (CLP)
 - Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013
 - Regulation (EU) n. 2015/830
 - Regulation (EU) n. 286/2011 (ATP 2 CLP)
 - Regulation (EU) n. 618/2012 (ATP 3 CLP)
 - Regulation (EU) n. 487/2013 (ATP 4 CLP)
 - Regulation (EU) n. 944/2013 (ATP 5 CLP)
 - Regulation (EU) n. 605/2014 (ATP 6 CLP)
 - Regulation (EU) n. 2015/1221 (ATP 7 CLP)
 - Regulation (EU) n. 2016/918 (ATP 8 CLP)
 - Regulation (EU) n. 2016/1179 (ATP 9 CLP)
 - Regulation (EU) n. 2017/776 (ATP 10 CLP)
- Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:
- Restrictions related to the product:
 - Restriction 3
 - Restrictions related to the substances contained:
 - No restriction.
- Where applicable, refer to the following regulatory provisions :
- Directive 2012/18/EU (Seveso III)
 - Regulation (EC) nr 648/2004 (detergents).
 - Dir. 2004/42/EC (VOC directive)
- Provisions related to directive EU 2012/18 (Seveso III):
- Seveso III category according to Annex 1, part 1
 - None
- 15.2. Chemical safety assessment



Safety Data Sheet

**GREEN
TURTLE**

FAST HARDENER

No Chemical Safety Assessment has been carried out for the mixture.

SECTION 16: Other information

Full text of phrases referred to in Section 3:

- H302 Harmful if swallowed.
- H312 Harmful in contact with skin.
- H332 Harmful if inhaled.
- H314 Causes severe skin burns and eye damage.
- H317 May cause an allergic skin reaction.
- H412 Harmful to aquatic life with long lasting effects.
- H318 Causes serious eye damage.
- H315 Causes skin irritation.
- H411 Toxic to aquatic life with long lasting effects.
- H319 Causes serious eye irritation.
- H335 May cause respiratory irritation.

Hazard class and hazard category	Code	Description
Acute Tox. 4	3.1/4/Dermal	Acute toxicity (dermal), Category 4
Acute Tox. 4	3.1/4/Inhal	Acute toxicity (inhalation), Category 4
Acute Tox. 4	3.1/4/Oral	Acute toxicity (oral), Category 4
Skin Corr. 1A	3.2/1A	Skin corrosion, Category 1A
Skin Corr. 1B	3.2/1B	Skin corrosion, Category 1B
Skin Irrit. 2	3.2/2	Skin irritation, Category 2
Eye Dam. 1	3.3/1	Serious eye damage, Category 1
Eye Irrit. 2	3.3/2	Eye irritation, Category 2
Skin Sens. 1	3.4.2/1	Skin Sensitisation, Category 1
Skin Sens. 1,1A,1B	3.4.2/1-1A-1B	Skin Sensitisation, Category 1,1A,1B
STOT SE 3	3.8/3	Specific target organ toxicity - single exposure, Category 3
Aquatic Chronic 2	4.1/C2	Chronic (long term) aquatic hazard, category 2
Aquatic Chronic 3	4.1/C3	Chronic (long term) aquatic hazard, category 3

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Classification according to Regulation (EC) Nr. 1272/2008	Classification procedure
Acute Tox. 4, H302	Calculation method
Skin Corr. 1A, H314	Calculation method
Eye Dam. 1, H318	Calculation method
Skin Sens. 1, H317	Calculation method
Aquatic Chronic 3, H412	Calculation method

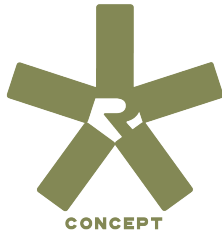
This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

- ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities
- SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.



Safety Data Sheet

**GREEN
TURTLE**

F A S T H A R D E N E R

This MSDS cancels and replaces any preceding release.

ADR:	European Agreement concerning the International Carriage of Dangerous Goods by Road.
ATE:	Acute Toxicity Estimate
ATEmix:	Acute toxicity Estimate (Mixtures)
CAS:	Chemical Abstracts Service (division of the American Chemical Society).
CLP:	Classification, Labeling, Packaging.
DNEL:	Derived No Effect Level.
EINECS:	European Inventory of Existing Commercial Chemical Substances.
GefStoffVO:	Ordinance on Hazardous Substances, Germany.
GHS:	Globally Harmonized System of Classification and Labeling of Chemicals.
IATA:	International Air Transport Association.
IATA-DGR:	Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
ICAO:	International Civil Aviation Organization.
ICAO-TI:	Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG:	International Maritime Code for Dangerous Goods.
INCI:	International Nomenclature of Cosmetic Ingredients.
KSt:	Explosion coefficient.
LC50:	Lethal concentration, for 50 percent of test population.
LD50:	Lethal dose, for 50 percent of test population.
PNEC:	Predicted No Effect Concentration.
RID:	Regulation Concerning the International Transport of Dangerous Goods by Rail.
STEL:	Short Term Exposure limit.
STOT:	Specific Target Organ Toxicity.
TLV:	Threshold Limiting Value.
TWA:	Time-weighted average
WGK:	German Water Hazard Class.