

Safety Data Sheet

**GREEN
TURTLE**





S L O W 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 SLOW HARDENER
Trade code: FD2
- 1.2. Relevant identified uses of the substance or mixture and uses advised against
Recommended use:
Industrial use, Professional use, Consumer use
- 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. 1B, 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:



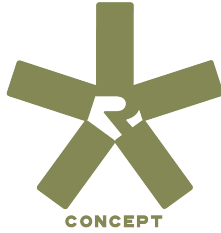
Danger

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:

- P101 If medical advice is needed, have product container or label at hand.
- P260 Do not breathe vapours.
- P264 Wash with water, Thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.



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

P273 Avoid release to the environment.

Special Provisions:

None

Contains

3-aminomethyl-3,5,5-trimethylcyclohexylamine

O,O'-Bis(2-aminopropyl)polypropylene glycol

1,3-Benzenedimethanamine

Trimethylhexamethylenediamine

Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 5- amino-1,3,3-trimethylcyclohexanemethanamine and (chloromethyl)oxirane

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
>= 15% - < 20%	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
>= 10% - < 12.5%	O,O'-Bis(2-aminopropyl)polypropylene glycol	CAS: 9046-10-0	3.2/1C Skin Corr. 1C H314 3.3/1 Eye Dam. 1 H318 4.1/C2 Aquatic Chronic 2 H411
>= 10% - < 12.5%	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
>= 3% - < 5%	Trimethylhexamethylenediamine	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
>= 1% - < 3%	benzyl alcohol	Index number: 603-057-00-5 CAS: 100-51-6 EC: 202-859-9	3.1/4/Oral Acute Tox. 4 H302 3.1/4/Inhal Acute Tox. 4 H332



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>= 1% - < 3%	Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 5- amino-1,3,3-trimethylcyclohexanemet hanamine and (chloromethyl)oxirane		 3.2/1B Skin Corr. 1B H314  3.4.2/1 Skin Sens. 1 H317 4.1/C3 Aquatic Chronic 3 H412
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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.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.



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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

SECTION 9: Physical and chemical properties



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SLOW HARDENER

9.1. Information on basic physical and chemical properties

Properties	Value	Method:	Notes:
Appearance and colour:	Liquid,orange	--	--
Odour:	amine	--	--
Odour threshold:	N.A.	--	--
pH:	9.5	--	--
Melting point / freezing point:	N.A.	--	--
Initial boiling point and boiling range:	N.A.	--	--
Flash point:	> 93 ° 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:	0.979 g/cm3	--	--
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:	402.451 mm2/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.

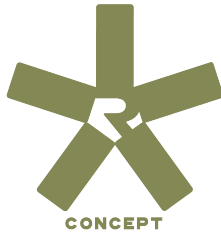
10.5. Incompatible materials

None in particular.

10.6. Hazardous decomposition products

None.

SECTION 11: Toxicological information



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11.1. Information on toxicological effects

Toxicological information of the product:

+Green Turtle Slow Hardener

a) acute toxicity

The product is classified: Acute Tox. 4 H302

ATEmix - Oral 1895,64 mg/kg

ATEmix - Dermal 5365,85 mg/kg

ATEmix - Inhalation (Mist) 11,3688 mg/l

b) skin corrosion/irritation

The product is classified: Skin Corr. 1B 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

benzyl alcohol - CAS: 100-51-6

LD50 (RABBIT) SKIN SINGLE DOSE: 2000 MG/KG

SECTION 12: Ecological information

12.1. Toxicity

Adopt good working practices, so that the product is not released into the environment.

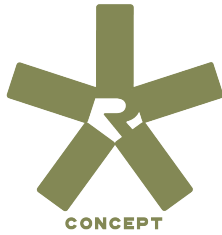
+Green Turtle Slow Hardener

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



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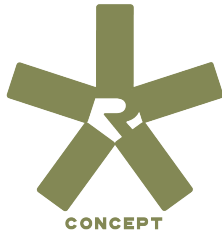
- 12.2. Persistence and degradability
None
N.A.
- 12.3. Bioaccumulative potential
Trimethylhexamethylenediamine - CAS: 25620-58-0
Test: Pow- Log 0.77
- 12.4. Mobility in soil
N.A.
- 12.5. Results of PBT and vPvB assessment
vPvB Substances: None - PBT Substances: None
- 12.6. Other adverse effects
None

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.(3-aminomethyl-3,5,5-trimethylcyclohexylamine, 1,3-Benzenedimethanamine)
IATA-Shipping Name: POLYAMINES, LIQUID, CORROSIVE, N.O.S.(3-aminomethyl-3,5,5-trimethylcyclohexylamine, 1,3-Benzenedimethanamine)
IMDG-Shipping Name: POLYAMINES, LIQUID, CORROSIVE, N.O.S.(3-aminomethyl-3,5,5-trimethylcyclohexylamine, 1,3-Benzenedimethanamine)
- 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
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



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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

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

SECTION 16: Other information

Full text of phrases referred to in Section 3:

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

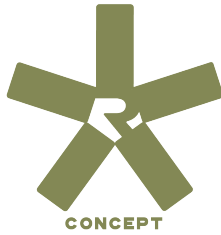
H412 Harmful to aquatic life with long lasting effects.

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H318 Causes serious eye damage.

H411 Toxic to aquatic life with long lasting effects.



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H332 Harmful if inhaled.

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. 1B	3.2/1B	Skin corrosion, Category 1B
Skin Corr. 1C	3.2/1C	Skin corrosion, Category 1C
Eye Dam. 1	3.3/1	Serious eye damage, Category 1
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
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. 1B, 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:

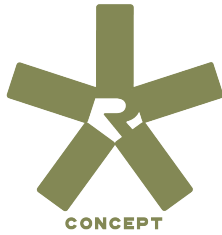
ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities
SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold

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.

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.



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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.