

Material Safety Data Sheet (MSDS)

Date: 25-06-2013

Supplier:

GRATCH INTERNATIONAL

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1. Identification of the substance/mixture and of the company/undertaking

• 1.1 Product identifier

- Commercial description : Enovio Poly-Agua

- Product code : xxxxxx

- Product description : 2K, water-based Anti-Graffiti coating

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

· Application of the substance/the preparation

: Industrial.

: For detailed information, see technical data sheet.

• 1.3 Details of the supplier of the safety data sheet

· Company identification : See heading of Material Safety Data Sheet.

• 1.4 Emergency telephone number

: - 0031 77 465 10 95

2. Hazards identification

• 2.1 Classification of the substance or mixture

- **Product Description : Mixture**

• Classification according to Regulation (EC) No 1272/2008

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

Not classified.

• Classification according to Directive 67/548/EEC or 1999/45/EC

The product is not classified as dangerous according to Directive 1999/45/EC and its modifications.

Classification Not classified.

• 2.2 Label elements

• Labeling according to Directive 67/548/EEC or Directive 1999/45/EC

- **Dangerous ingredient(s)** : -----

· **Hazard pictogram(s)**

- **R-phrases(s)**

- **S-phrases(s)**

S23: Do not breathe gas/fumes/vapour/spray

S38: In case of insufficient ventilation wear suitable respiratory equipment .

• Label in accordance with Regulation (EC) No 1272/2008

- **Dangerous ingredient(s)** : ---

· **Hazard pictogram(s)** : Not apply.

· **Signal word** : No signal word.

- **Hazard statements** : ---

• Precautionary statements.

- **Prevention**

P260: Do not breathe dust/fume/gas/mist/vapours/spray

P285: In case of inadequate ventilation wear respiratory protection

- **Response**

P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses if present and easy to do – continue rinsing .

- Store

P401: Store frost-free

- Disposal

Not apply.

· 2.3 Other hazards

Physical/chemical hazards : Not available. Hazards for the health : Not available.

Hazards for the environment : No significant danger. This product is no substance or contains no PBT or vPvB (in accordance with Annex XIII).

3. Composition/information on ingredients

- Product Description: Preparation

· 3.1 Substances

· **CAS nr. - Name component(s)** 111-76-2 2-Butoxy ethanol

· **Identification number (s)**

· **EINECS nr. :** 203-905-0 · **EC annex nr. :** 603-014-00-0

· **Reach nr. :** 01-2119475108-36 - **Weight % :** 1 - 3,5%

· **Classification Directive 67/548/EEC :** Xn; R20/21/22
Xi; R36/38

Regulation (EC) No 1272/2008 : Acute toxicity dermal Cat.4, H312

Acute toxicity inhalation Cat.4, H332

Acute toxicity oral Cat.4, H302

Eye irritation Cat.2, H319

Skin irritation Cat.2, H315

The full text of the (EU)H-statements is in section 16.

The full text of the R-phrases is in section 16.

There are no additional ingredients present which, as far as known to the supplier at this time and in the appropriate concentrations, concentrations applicable, are classified as harmful to health or to the environment, PBT or zPzB or a workplace exposure limit assigned and should be listed in this section.

Occupational exposure limits, if available, are listed in section 8

4. First aid measures

· 4.1 Description of first aid measures

· General:

Take off immediately all contaminated clothing.

· Inhalation :

Avoid further exposure. Persons who provide assistance must make sure that they expose themselves or others. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Seek medical attention if symptoms occur.

· Skin Contact :

Remove contaminated clothing. Wash contaminated clothing before re-use. Rinse skin immediately with plenty of water. (shower if necessary). Consult doctor if irritation develops.

· Eye contact :

Rinse the eyes immediately with large amounts of water, occasionally lifting the upper and lower eyelids. Check for contact lenses be worn, if so remove if possible. Consult a doctor if irritation occurs.

· Ingestion :

Rinse mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Not to put to vomiting unless medical personnel indicates that this should. Seek medical attention if symptoms occur.

Protection of first aiders

There should be no action be taken if there is risk of personal accidents or in case of insufficient training.

· Information for the doctor :

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

See section 11.

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

For specialist advice doctors should contact the NVCI or the Poison center.

5. Firefighting measures

· 5.1 Extinguishing media

· Suitable :

Powder , Alcohol resistant foam , Carbon dioxide , Water spray.

· **In suitable : Do not use a heavy water stream, in order to avoid the fire to extend.**

· 5.2 Special hazards arising from the substance or mixture

Risks of the substance or mixture

In case of fire or heating runs the press and the holder may burst.

Hazardous combustion There may be nitrous gases formed.

products

· 5.3 Advice for firefighters

Special protective measures for firefighters

There are no special measures required.

Special Protective Equipment for Firefighters

Firefighters should wear suitable clothing and a self-contained breathing apparatus (SCBA) that has a full facial part and with a pressure relief mode. Clothes for firefighters (including helmets, protective boots and gloves), in

accordance with European standard EN 469, gives a basic level of protection for incidents involving chemicals.

Comments

Firefighters protective equipment specified in section 8.

· **Further data**

The endangered tanks with cooling water jet-held.

Fire residues and contaminated fire extinguishing water must be salvaged in accordance with government regulations.

6. Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Reporting procedures

In the event of contamination or accidental discharge, inform the competent authorities and all regulations in force.

For persons other than the emergency services :

There should be no action be taken if there is risk of personal accidents or in case of insufficient training.

Evacuate surrounding areas. Make sure unprotected and redundant staff enters not.

Do not touch spilled material and walk not get through.

Wear recommended personal protective equipment.

For the emergency services

See also the information under the heading "for persons other than the emergency services".

· 6.2 Environmental precautions :

Shut off leaks if without risks. Dike in the spilled product as much as possible with inert material. Prevent entry of product in public water, sewers or soil. Notify authorities if product enters sewers or public waters.

· 6.3 Methods and material for containment and cleaning up :

Small spills

Shut off leaks if without risks. Remove packaging from the area where spilled it.

Dilute with water and clean with cloth, is water soluble.

Extensive spills

Shut off leaks if without risks. Remove packaging from the area where spilled it.

Avoid access to waterways, sewers, basements or confined areas.

Enter leaked material to a waste water treatment plant or trade as follows.

Spilled preparation take with non-combustible absorbent materials, e.g. sand, Earth, vermiculite or diatomaceous earth drain and place in a container in accordance with local regulations (see section 13).

Note See section 1 for emergency and contact addresses

section 13: disposal.

· 6.4 Reference to other sections

For emergency contact, please go to the heading 1

For personal protection, see section 8.

For the removal of the waste product, see section 13.

7. Handling and storage

The information in this section provides general advice and guidelines. The list of recommended applications in section 1 should be information that is given in the Exposure scenario (s).

• 7.1 Precautions for safe handling

Protective measures

Use the appropriate personal protective equipment (see section 8).

When this material is used, stored or processed, must eat, drinking and smoking are prohibited.

Employees must wash their hands and face before eating, drinking and smoking.

Remove contaminated clothing and protective equipment before you canteens, etc. enter.

Advice on general industrial hygiene

When this material is used, stored or processed, must eat, drinking and smoking are prohibited.

Employees must wash their hands and face before eating, drinking and smoking.

Remove contaminated clothing and protective equipment before you canteens, etc. enter.

See also section 8 for additional information on hygiene measures.

• 7.2 Conditions for safe storage, including any incompatibilities

Keep between the following temperatures: 5 to 40 ° c (41 to 104 ° f). Store in accordance with local regulations.

Store in original package, protected from direct sunlight, in a dry, cool, well-ventilated place away from material at which should be avoided (see section 10) and food and drink. Please save your packaging tightly closed and sealed until use. Opened packages should be carefully resealed and need to be kept upright to prevent leakage. Do not save in containers without label. Take appropriate measures to prevent the product spread in the environment.

• Further information about storage conditions :

Sensitive to frost.

• 7.3 Specific end use(s): see §1.2

8. Exposure controls/personal protection

The information in this section provides general advice and guidelines. The list of recommended applications in section 1 should be consulted, use specific for any available information that is given in the Exposure scenario (s).

• 8.1 Control parameters

Occupational exposure limits

2-Butoxy ethanol : Limit value (BE) : 20 ppm (98 mg/m³) (2009) (D)

2-Butoxy ethanol : Short time value (BE) : 50 ppm (246 mg/m³) (2009) (D)

2-Butoxy ethanol : Limit value (TWA 8 h) (NL) : 20 ppm (100 mg/m³) (2007) (H)

2-Butoxy ethanol : Limit value (TWA 15 min) (NL) : 50 ppm (246 mg/m³) (2007) (H)

(D) The mention "D" means that the absorption of the agent by skin, mucous membranes or eyes constitutes an important part of the total exposition. This absorption can be the consequence of direct contact as well as his presence in the air.

(H) The addition of an "H" indicates that the substance is relative easily absorbed by the skin.

Recommended monitoring procedures

: If this product contains ingredients with exposure limits, can monitoring of persons, of workplace environment or biological monitors are required to measure the effectiveness of the ventilation or of other control measures and/or the necessity to use respiratory protection equipment. For methods to determine chemical exposure by inhalation and national guidelines for the determination of hazardous substances you need to consult the European standard EN 689.

- **Biological limit values** : They will be included when available.

• DNEL's

2-Butoxy ethanol : Worker, acute - systemic effects, inhalation : 633 mg/m³

2-Butoxy ethanol : Worker, long-term - systemic effects, dermal : 75 mg/kg bw/day

2-Butoxy ethanol : Worker, long-term - systemic effects, inhalation : 98 mg/m³

2-Butoxy ethanol : General population, acute - systemic effects, inhalation : 426 mg/m³

2-Butoxy ethanol : General population, acute - local effects, inhalation : 123 mg/m³

2-Butoxy ethanol : General population, long-term - systemic effects, dermal : 38 mg/kg bw day

2-Butoxy ethanol : General population, long-term - systemic effects, inhalation : 49 mg/m³

2-Butoxy ethanol : General population, long-term - systemic effects, oral : 3,2 mg/kg bw/ day

PNECs 2-Butoxy ethanol : Fresh water : 8,8 mg/l

2-Butoxy ethanol : Marine water : 0,88 kg/l

2-Butoxy ethanol : Sewage treatment plant : 463 mg/l

2-Butoxy ethanol : Fresh water sediment : 34,6 mg/kg

2-Butoxy ethanol : Marine water sediment : 3,46 mg/kg

- 8.2 Exposure controls

Adequate technical management measures

: No special requirements for ventilation. A good general ventilation should be sufficient to keep exposure to polluted air in the workplace under control.

If this product contains ingredients with exposure limits, use a closed process environment, local exhaust ventilation, or other engineering controls to avoid worker exposure, to keep polluted air below any recommended or statutory limits.

Individual protection measures

Hygiene measures

: Wash your hands after handling chemical products, forearms and face thoroughly before you eat, drink or go to the toilet and at the end of the working day.

Appropriate techniques should be used to remove potentially contaminated clothing.

Wash contaminated clothing before re-use. Emergency eye wash fountains and showers should be available in the immediate vicinity of any potential exposure.

Eye Protection

Safety glasses with side shields.

Hand Protection

When a risk assessment indicates this is necessary, wear when handling chemical products impermeable gloves to be worn that are resistant to chemicals and comply with an approved standard.

Skin and Body Protection

: Work wear.

Respiratory Protection

There is no special protection.

In case of insufficient ventilation, wear suitable respiratory equipment.

Environmental exposure controls

: Emissions from ventilation or machine equipment should be checked to ensure that it meets the requirements of the environmental protection legislation. In some cases are gas scrubbers filters or technical modifications of the process equipment required, to reduce emissions to an acceptable level.

Advice on personal protection, applies to high exposure levels. Vote per situation an appropriate level of personal protection off on a risk assessment.

9. Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

Physical State (20°C) : Liquid.

Form/Color : Color Depending

Odour : Mild odour.

Odour threshold : No data available.

pH value : 7 à 8,5 (20°C)

Congealing/Melting point : 0 °C

Boiling Point/Range (1013 hPa) : 100 °C

Softening Area : No data available.

Flash point : > 65°C

Evaporation rate : No data available.

Flammability (solid, gas) : No data available.

Combustion Time : Do not apply.

Burning Rate : Do not apply.

Explosion limits in air : No data available.

Vapour pressure (20°C) : 23 hPa

Relative vapour density (air=1) : No data available.

Solids content : 40 en 65%

Relative density (water=1) : 1,04 - 1,3g/cm³ (20°C)

Bulk Density : No data available.

Solubility

Solubility in water : Complete solubility.

Log P Octanol/Water (20°C) : No data available.

Auto-ignition temperature : No data available.

Decomposition temperature : No data available.

Explosive properties : Not applicable.

Oxidizing properties : Not applicable.

- **VOS**: : Ca. 35 gr/Lt

• **9.2 Other information**

Comments : Miscible with water.

10. Stability and reactivity

• **10.1 Reactivity**

There are for this product or its components no specific test data available related to the reactivity.

• **10.2 Chemical stability**

Stable at normal circumstances.

• **10.3 Possibility of hazardous reactions**

Under normal conditions of storage and use, hazardous reactions will not occur.

• **10.4 Conditions to avoid**

No specific data.

• **10.5 Incompatible materials**

No specific data.

• **10.6 Hazardous decomposition products**

No specific data.

11. Toxicological information

• **11.1 Information on toxicological effects** Product/ingredient name Dose Exposure

- **Acute toxicity** :

Product/ingredient name Result Species Dose Exposure

2-Butoxy ethanol LCLo Inhalation Rat > 2 mg/l 4 h

Vapour

LD50 Dermal Rat 2270 mg/kg -

LD50 Oral Rat > 400 mg/kg -

Conclusion/Summary : Not available.

- **Specific target organ toxicity** - : Not available.

single exposure

- **Specific target organ toxicity** - : Not available.

repeated exposure

- **Aspiration hazard** : Not available.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Skin contact : No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.

Inhalation : No specific data.

Skin contact : No specific data.

Ingestion : No specific data.

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.

effects

Fertility effects No known significant effects or critical hazards.

12. Ecological information

• 12.1 Toxicity

- Aquatic toxicity :

- **For the constituents.** 2-Butoxy ethanol : LC50 (Fish, 24 h) : 1700 mg/l (Carassius auratus)

2-Butoxy ethanol : EC50 (Daphnia magna, 24 h) : > 1500 mg/l

• 12.2 Persistence and degradability

2-Butoxy ethanol : Persistence and degradability : Easily

• **12.3 Bioaccumulative potential** 2-Butoxy ethanol : Bioaccumulation : No

• 12.4 Mobility in soil

2-Butoxy ethanol : Mobility : Completely soluble in water

• 12.5 Results of PBT and vPvB assessment

Evaluation 2-Butoxy ethanol : PBT/vPvB : No

• 12.6 Other adverse effects

No other relevant information available.

OTHER ECOLOGICAL INFORMATION

Vocs (Volatile Organic Compounds): 35 gr/Lt

13. Disposal considerations

The waste removal recommendations apply to the products in the condition in which it is delivered. At elimination the laws and regulations in force are complied with and take account of the condition in which the product is to drain. The information in this section, provides general advice and guidelines. The list of recommended uses in Section 1 should be consulted for any available use specific information which is provided in the Exposure scenario (s).

• 13.1 Waste treatment methods

Waste from residues/Unused products

Disposal Methods

Producing waste should always be avoided as far as possible or be limited to a minimum. Large amounts of product residues may not be disposed of through the sewer, but need to be processed in an appropriate waste water treatment plant. Let excess not to recycle products drains by a reputable licensed waste disposal plant. Disposal of this product, solutions and all by-products must always be made in accordance with the applicable legislation in the field of environmental protection and waste treatment and with all the other regional or locally applicable regulations. The empty packaging should be recycled. Incineration or landfill should only be considered when recycling is not possible. The product and its container must be disposed of in a safe way. Empty drums or inliner can contain any residual product. Avoid dissemination of spilled material and waste material and prevent that this comes into contact with soil, waterways, drains and sewers.

Hazardous Waste

: To present knowledge of the supplier, this product is not regarded as hazardous waste as defined in EC Directive 91/689/EC

Packaging

Disposal Methods

: Producing waste should always be avoided as far as possible or be limited to a minimum. The empty packaging should be recycled. Incineration or landfill should only be considered when recycling is not possible.

Special precautions

: The product and its container must be disposed of in a safe way. Empty drums or inliner can contain any residual product. Avoid dissemination of spilled material and waste material and prevent that this comes into contact with soil, waterways, drains and sewers.

14. Transport information

- Transport (private)

Transport the materials always in sealed packaging, which stand upright, labeled and secured.

Make sure that the persons who carry the product know what they need to do in case of an accident or spillage.

ADR/RID ADN/ADNR IMDG IATA

14.1 UN number Not regulated.

14.2 UN proper - - - -

shipping name

14.3 Transport - - - -

hazard classe(s)

14.4 Packing group - - - -

14.5 Environmental No.

hazards

14.6 Special precautions for user

Danger number - - - -

Hazard Label(s) - - - -

EmS-N° - - - -

Additional information - - - -

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

Not available.

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 authorisation

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Not applicable.

National regulations

· **15.2 Chemical Safety Assessment:** Not applicable.

16. Other information

This safety data sheet has been drawn up in accordance with Regulation (EU) No 453/2010.

This safety data sheet is exclusively made for industrial/professional use.

- **Changes** Changes from the previous revision

Full (according to Regulation (EU) no 453/2010)

R-phrases

R20/21/22 - Harmful by inhalation, in contact with skin and if swallowed.

R36/38 - Irritating to eyes and skin.

(EU)H-statements

H302 - Harmful if swallowed.

H312 - Harmful in contact with skin.

H315 - Causes skin irritation.

H319 - Causes serious eye irritation.

H332 - Harmful if inhaled.

List of abbreviations and acronyms that could be (but not necessarily are) used in this safety data sheet:

Acronym Full text

ADN (Accord européen relatif au transport international des marchandises Dangereuses par voie de Navigation interieur): European agreement concerning the international carriage of dangerous goods by inland waterways

ADR (Accord européen relatif au transport international des marchandises Dangereuses par Route) : European agreement concerning the international carriage of dangerous goods by road

AICS Australian Inventory of Chemical Substances

AIHA WEEL American Industrial Hygiene Association Workplace Environmental Exposure Limits

ASTM ASTM International, originally known as the American Society for Testing and Materials (ASTM)

ATE Acute Toxicity Estimate

CAS Chemical Abstracts Service (division of the American Chemical Society)

CLP Classification, Labeling and Packaging Regulation [Regulation (EC) No. 1272/2008]

CO Carbon monoxide

DNEL (Derived No Effect Level) : an estimated safe exposure level

DSL Domestic Substance List (Canada)

EINECS European Inventory of Existing Commercial Substances

ELINCS European List of Notified Chemical Substances

EmS (Emergency Schedule) : the first code refers to the relevant fire schedule and the second code refers to the relevant spillage schedule

ENCS Existing and new Chemical Substances (Japanese inventory)
EUH statement CLP-specific Hazard statement
GHS Globally Harmonized System of Classification and Labeling of Chemicals
IATA International Air Transport Association
ICAO International Civil Aviation Organization
IECSC Inventory of Existing Chemical Substances in China
IMDG International Maritime Code for Dangerous Goods
KECI Korean Existing Chemicals Inventory
LC Lethal Concentration
LD Lethal Dose
N/A Not applicable
N/D Not determined
NE Not established
NDSL Non-Domestic Substances List (Canada)
NFPA (National Fire Protection Association) or fire diamant
NZIoC New Zealand Inventory of Chemicals
PBT Persistent, Bioaccumulative and Toxic
PICCS the Philippines Inventory of Chemical Substances
PNEC (Predicted No Effect Concentration) : concentration below which exposure to a substance is not expected to cause adverse effects
REACH Registration, Evaluation, Authorisation and restriction of Chemicals
RID Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
RRN REACH registration number
TLV Threshold Limit Value (American Conference of Governmental Industrial Hygienists)
TSCA Toxic Substances Control Act (list of the United States)
UVCB Substances of Unknown or Variable composition, Complex reaction products or Biological materials
VOC Volatile Organic Compound
zPzB very persistent and very bioaccumulative
WGK (Wassergefährdungsklasse) : a German classification of substances that indicate the environmental hazard for surface water

Training Advice :

Staff serves for handling of the substance/the preparation are sufficiently informed by means of this material safety data sheet. The information is possible not or not entirely apply to combination of the product with other substances or in certain applications. The user is responsible to take the appropriate measures and make sure that the data is arranged and sufficient for the use he makes of the product. Under uncertainty about this it is advised to consult with an appropriate professional or the supplier.

- REFERENCES

: Sources of information used in preparing this SDS included one or more of the following: results from in house or supplier toxicology studies, CONCAWE Product Dossiers, publications from other trade associations, such as the EU Hydrocarbon Solvents REACH Consortium, U.S. HPV Program Robust Summaries, the EU IUCLID Data Base, U.S. NTP publications, and other sources, as appropriate. This information is to our knowledge correct and complete on the date of issue of this safety data sheet. The information only concerns the product and does not give any guarantee for the quality and the completeness of the properties of the product, or in case of mixing or using in any other process. It remains the responsibility of the user to assure himself that the information is suitable and complete concerning the special use he makes of the product.