

Safety data sheet



Printing date: 23 October 2019
Review number: 1
Review date: 23 October 2019
Version: 2
More information: +39 0444 960991
Information in case of emergency: +39 0444 960991

Trade name: **VERTYS FLUSHER**

SECTION 1. Identification of the substance/preparation and of the company/undertaking

1.1 Trade Name

Denomination VERTYS FLUSHER

1.2. Relevant identified uses of the substance or mixture and not recommended uses

Description/Use Finishing detergent

1.3. Details of the supplier of the safety data sheet

Company name A.GREE SRL
Address Via Retrone, 14
Place and Country 36077 ALTAVILLA VICENTINA (VI) ITALIA
tel. 0444 960 991
fax. 0444 14 92 178
e-mail address of the competent person,
responsible for the Safety Data Sheet info@vertysystem.com

1.4. Emergency telephone number

For urgent information please contact 0444 960 991 available from Monday and Friday between 8:30 am and 6:00 pm

Telephone numbers of the main Italian Poison Control Centres (active 24/24 hours)

Pavia Poison Control Centres 0382 24444(CAV IRCCS Maugeri's Foundation - Pavia)
Milan Poison Control Centres 02 66101029 (CAV Niguarda Ca' Granda's Hospital - Milan)
Bergamo Poison Control Centres 800 883300 (CAV Riuniti's Hospital - Bergamo)
Florence Poison Control Centres 055 7947819 (CAV Careggi Hospital - Florence)
Rome Poison Control Centres 06 3054343(CAV Policlinico Gemelli - Rome)
Rome Poison Control Centres 06 49978000(CAV Policlinico Umberto I - Rome)
Naples Poison Control Centres 081 7472870(CAV Cardarelli's Hospital - Naples)

SECTION 2. Identification of hazards

2.1. Classification of the substance or mixture

The product is classified as dangerous according to the provisions of Regulation (EC) 1272/2008 (CLP) (and subsequent amendments and adaptations). product therefore requires a safety data sheet complying with the provisions of Regulation (EC) 1907/2006 and subsequent amendments. Any additional information concerning the risks to health and/or the environment can be found in Sections 11 and 12 of this Fact Sheet. Å Å.

Hazard classification and indications:

Lighter fluid, category 2 H225 Highly flammable liquid and vapour.
eye irritation, category 2 H319 Causes severe eye irritation.

2.2. Label elements

Warning: Danger

Indication of danger:

H225 Highly flammable liquid and vapours.
H319 Causes severe eye irritation.

Precautionary statements shall:

P210 Keep away from heat sources, hot surfaces, sparks, open flames or other sources of ignition. Do not smoke.
P233 Keep the container tightly closed.
P264 Wash thoroughly after use.
P280 Wear protective gloves and protect eyes / face.
P303+P361+P353 IN CASE OF CONTACT WITH SKIN (or hair): Remove all contaminated clothing immediately. Rinse skin / shower.
P337+P313 If eye irritation persists, consult a doctor.

2.3. Other dangers

On the basis of facts available, the product does not contain PBT or vPvB substances by more than 0,1 %.



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SECTION 3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixture

Contains:

Identification.

2-PROPANOL

CAS. 67-63-0

CE. 200-661-7

INDEX. 603-117-00-0

Conc. %

5-9

Flam. Liq. 2 H225, Eye Irrit. 2 H319, STOT SE 3 H336

d2-BUTOSSIETANOLO

CAS. 111-76-2

CE. 203-905-0

INDEX. 603-014-00-0

5-9

Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Eye Irrit. 2 H319, Skin Irrit. 2 H315

AMMONIACA

CAS. 1336-21-6

CE. 215-647-6

INDEX. 007-001-01-2

0-0,5

Skin Corr. 1B H314, STOT SE 3 H335, Aquatic Acute 1 H400 M=1, Nota B

Note: Upper value of the excluded range.

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove any contact lenses. Wash immediately and abundantly with water for at least 15 minutes, opening the eyelids well. Consult a doctor if the problem persists.

SKIN: Take off contaminated clothing. Wash immediately and abundantly with water. If irritation persists, consult a Medic or. Wash contaminated clothing before re-use.

INHALATION: Bring the subject to the open air. If breathing is difficult, call a doctor immediately.

INGESTION: Consult a doctor immediately. Induce vomiting only on doctor's recommendation. Do not administer anything orally if the subject is unconscious and not authorized by the doctor.

4.2. Main symptoms and effects, both acute and delayed

For symptoms and effects due to the substances contained, see chap. 11.

4.3. Indication of possible immediate medical attention and special treatment.

Information not available.

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SECTION 5. Fire prevention measures

5.1. Extinguishing Media

SUITABLE EXTINGUISHING MEDIA

The means of extinction are: carbon dioxide, foam, chemical powder. For leaks and spills of the product that have not ignited, the water spray can be used to disperse flammable vapors and protect people engaged in stopping the leak.

UNSUITABLE EXTINGUISHING MEDIA

Do not use water jets. Water is not effective to extinguish the fire, however, it can be used to cool closed containers exposed to flame, preventing bursts and explosions.

5.2. Special hazards arising from the substance or mixture

FIRE EXPOSURE HAZARDS

Overpressure may be created in containers exposed to fire with danger of explosion. Avoid breathing combustion products.

5.3. Recommendations for fire extinguishers

GENERAL INFORMATION

Cool the containers with water jets to avoid the decomposition of the product and the development of substances potentially dangerous for health. Always wear the complete fire protection equipment. Collect the quenching water that should not be discharged into the sewers. Dispose of the contaminated water used for extinguishing and the residue of the fire according to current regulations.

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and procedures in the event of an emergency.

Stop the leak if there is no danger.

Wear appropriate protective equipment (including personal protective equipment referred to in Section 8 of the safety data sheet) to prevent contamination of skin, eyes and personal clothing. These indications are valid both for workers and for emergency interventions.

6.2. Environmental precautions.

Prevent the product from entering sewers, surface water, groundwater.

6.3. Methods and materials for containment and remediation.

Aspirate the spilled product into a suitable container. Assess the compatibility of the container to be used with the product, checking the section

10. Absorb the remainder with inert absorbent material.

Ensure sufficient ventilation of the place affected by the loss. Check for any incompatibilities for the material of the Section 7 containers. Disposal of contaminated material shall be carried out in accordance with the provisions of point 13.

6.4. Reference to other sections.

Any information regarding personal protection and disposal is given in Sections 8 and 13

SECTION 7. Handling and storage

7.1. Precautions for safe handling.

Keep away from heat, sparks and open flames, do not smoke or use matches or lighters. Vapours can ignite with explosion, therefore, or they must be avoided by keeping doors and windows open and ensuring cross-ventilation. Without adequate ventilation, the vapors can accumulate or accumulate on the ground and ignite even at a distance, if triggered, with the danger of backfiring. Avoid the accumulation of electrostatic charges e. Connect to a grounding socket in the case of large packaging during racking operations and wear antistatic shoes. Strong and vigorous stirring and sliding of the liquid in the pipes and equipment may cause formation and accumulation of electrostatic charges and. To avoid the danger of fire and burst, never use compressed air in handling. Open the containers carefully, as they may be under pressure. Do not eat, drink or smoke during use. Avoid dispersion of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the containers closed, in a well-ventilated place, away from direct sunlight. Store in a cool, well-ventilated place, away from sources of heat, open flames, sparks and other sources of ignition. Keep containers away from incompatible materials by checking Section 10.

7.3. Special end-uses.

Information not available.

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SECTION 8. Exposure controls/personal protection

8.1. Control parameters

CHE	Suisse	Valeurs limites d'exposition aux postes de travail 2012. / Grenzwerte am Arbeitsplatz
GRB	United kingdom	EH40/2005 Workplace exposure limits
IRL	Eire	Code of Practice Chemical Agent Regulations 2011
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
EU	OEL EU	Direttiva 2009/161/UE; Direttiva 2006/15/CE; Direttiva 2004/37/CE; Direttiva 2000/39/CE.
	TLV - ACGIH	ACGIH 2014

2 - PROPANOL

Threshold limit value

Type	Status	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
WEL	GRB	999	400	1250	500	
OEL	IRL		200		400	SKIN
TLV-ACGIH		492	200	983	400	

2 - BUSSETANOL

Threshold value

Type	Status	TWA/8h		STEL		
		mg/m3	ppm	mg/m3	ppm	
VEL	CHE	49	10	98	20	SKIN
MAK	CHE	49	10	98	20	SKIN
WEL	GRB	123	25	246	50	SKIN
OEL	IRL	98	20	246	50	SKIN
TLV	ITA	98	20	246	50	SKIN
OEL	EU	98	20	246	50	SKIN
TLV-ACGIH		97	20			

AMMONIACA

Threshold value

Type	Status	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
TLV-ACGIH		17	25	24	35	

LEGEND:

(C) = CEILING ; INALAB = Inhalable fraction ; RESPIR = Respirable fraction ; THORAX = Thoracic fraction.

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8.2. Exposure controls.

Since the use of appropriate technical measures should always take priority over personal protective equipment, ensuring good ventilation in the workplace through effective local aspiration.

If you wish to choose personal protective equipment, ask your chemical suppliers for advice.

Personal protective equipment must bear the EC market, which certifies that it complies with the rules in force.

Provide emergency shower with visor.

PROTECTION OF THE HANDS

Protect hands with category III work gloves (ref. EN 374).

Compatibility, degradation, breaking time and permeation must be considered when choosing the material of work gloves.

In the case of preparations, the resistance of work gloves to chemical agents must be checked before use because it is not foreseeable.

Gloves have a wear time which depends on the duration and mode of use.

PROTECTION OF THE SKIN

Wear work clothes with long sleeves and safety footwear for professional use of category I (ref. Directive 89/686/EEC and EN ISO 20344).

Wash with soap and water after removing protective clothing.

To assess the desirability of providing antistatic clothing in the event of an explosive working environment.

EYE PROTECTION

It is advisable to wear hermetic protective glasses (ref. EN 166).

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) of the substance or one or more of the substances present in the product is exceeded, it is recommended to wear a Type A filter mask whose class (1, 2 or 3) should be chosen in relation to the limit concentration of use. (ref. standard EN 14387). If there are gases or vapours of a different nature and/or gases or vapours with particles (aerosols, fumes, mists, etc.) combined filters shall be provided. The use of means of respiratory protection is necessary if the technical measures taken are not sufficient to limit the worker's exposure to the threshold values taken into account. The protection offered by masks is however limited.

In case the substance considered is odorless or its olfactory threshold is higher than the relevant TLV-TWA and in case of emergency, wear an open circuit compressed air breathing apparatus (ref. EN 137) or an external air intake respirator (ref. EN 138). For the correct choice of respiratory protection device, refer to EN 529.

MONITORING OF ENVIRONMENTAL EXPOSURE.

Emissions from production processes, including those from ventilation equipment, should be controlled in order to comply with environmental protection legislation.

SECTION 9. Physical and chemical properties

9.1. Information on fundamental physical and chemical properties

Physical State	Liquid
Colour	Colourless
Odour	Mild
Olfactory threshold	Not available
pH.	10
Melting Point or Forstbite Point	Not available
Boiling Point	92 °C
Boiling Range	Not available
Flashpoint	< 23 °C
Evaporation rate	Not available
Flammability of solids and gases	Not inflammable
Lower flammability limit	Not available
Upper flammability limit	Not available
Lower explosive limit	Not available
Upper explosive limit	Not available
Vapour Pressur	Not available
Density of vapours	Not available
Relative density	0,900 Kg/l
Solubility in water	Partially soluble in water
Distribution coefficient/n-octano/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature:	Not available
Viscosity	Not available
Explosive properties	Not available
Oxidizing properties	Not available

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9.2. Other information

VOC (Direttiva 1999/13/CE) : 20,20 % - 181,80 g/litro.
VOC (carbonio volatile) : 11,44 % - 102,98 g/litro.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There is no particular danger of reaction with other substances under normal conditions of use.

10.2. Chemical stability.

The product is stable under normal conditions of use and storage.

10.3. Possibility of dangerous reactions.

Vapours can form explosive mixtures with air.

AMMONIA: risk of explosion by contact with strong acids and iodine. It can react dangerously with strong bases. 2-BUTOXYETHANOL: can react dangerously with: aluminum, oxidizing agents. Form peroxides with air.

10.4. Conditions to be avoided.

Avoid overheating. Avoid accumulation of static charges. Avoid any ignition source.
2-BUTOXYETHANOL: avoid exposure to sources of heat and open flames..

10.5. Incompatible materials.

AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Dangerous decomposition products.

Thermal decomposition or fire can release gases and vapours that are potentially harmful to health.
AMMONIA: oxides of nitrogen. 2-BUTOXYETHANOL: hydrogen.

SECTION 11. Toxicological information

11.1. Information on toxicological effects.

In the absence of experimental toxicological data on the product itself, the possible health hazards of the product have been assessed on the basis of the properties of the substances contained, in accordance with the criteria laid down in the reference legislation for classification. Therefore, consider the concentration of the individual and hazardous substances referred to in Sec. 3, to assess the toxicological effects of exposure to the product.

Acute effects: eye contact causes irritation; symptoms may include: redness, edema, pain and watery eyes.

Ingestion can cause health problems, which include abdominal pain with burning, nausea and vomiting.

AMMONIA
LD50 (Oral). 350 mg/kg Rat

2-BUTOXYETHANOL
LD50 (Oral). 615 mg/kg Rat
LD50 (Cutaneous). 405 mg/kg Rabbit
LC50 (Inhalation). 2,2 mg/l/4h Rat

2-PROPANOL
LD50 (Oral). 4710 mg/kg Rat
LD50 (Cutaneous). 12800 mg/kg Rat
LC50 (Inhalation). 72,6 mg/l/4h Rat

SECTION 12. Ecological information

Since no specific data on the preparation are available, use according to good working practice and avoid dispersing the product into the environment. Absolutely avoid dispersing the product in soil, sewers or water streams. Inform the competent authorities if the product has reached a water or sewer flow or if it has contaminated the soil or vegetation. Take measures to minimise the effects on the aquifer.

12.1. Toxicity.

AMMONIA
LC50 - Fish. 47 mg/l/96h Channa punctata
EC50 - Crustaceans. 20 mg/l/48h Daphnia magna

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12.2. Persistence and degradability.

AMMONIA
Biodegradability: Data not available.
2-BUTOXYETHANOL
Solubility in water. mg/l 1000 - 10000
Quickly Biodegradable.
2-PROPANOL
Quickly Biodegradable.

12.3. Bioaccumulation potential.

2-BUTOXYETHANOL
Partition coefficient: 0,81
n-octanol/water.
2-PROPANOL
Partition coefficient: 0,05
n-octanol/water.

12.4. Mobility in soil.

Information not available.

12.5. Results of the PBT and vPvB evaluation.

According to the available data, the product does not contain PBT or vPvB substances in a percentage greater than 0.1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations

13.1. Waste treatment methods.

Reuse, if possible. Product residues shall be considered hazardous special waste. The hazardous nature of the waste containing part of this product must be assessed on the basis of the legal provisions in force.

The disposal must be entrusted to a company authorized to manage the waste, in compliance with national and possibly local legislation.

CONTAMINATED PACKAGING

Contaminated packaging must be sent for recovery or disposal in accordance with national waste management rules.

SECTION 14. Transport information.

14.1. UN No.

Not applicable.

14.2. UN shipping name.

Not applicable.

14.3. Transport hazard classes.

Not applicable.

14.4. Packing group.

ADR / RID, IMDG, IATA: -

14.5. Hazards to the environment.

Not applicable.

14.6. Special precautions for users.

Not applicable.

14.7. Bulk transport according to MARPOL Annex II 73/78 and IBC.

Not relevant information.

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SECTION 15. Regulatory information

15.1. Specific health, safety and environmental standards and legislation for the substance or mixture.

Category Seveso 7b

Restrictions on the product or substances contained in accordance with Annex XVII Regulation (EC) 1907/2006.
None.

Product point 3 - 40

Substances in Candidate List (Art. 59 REACH).
None.

Substances subject to authorisation (Annex XIV REACH).
None.

Substances subject to export notification requirement Reg. (EC) 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Health Checks.

Workers exposed to this chemical agent dangerous to health must be subject to health surveillance carried out in accordance with the provisions of art. 41 of D.Lgs. 81 of 9 April 2008 unless the risk to the safety and health of the worker has been assessed irrelevant, in accordance with art. 224 paragraph 2

15.2. Chemical safety assessment.

No chemical safety assessment has been drawn up for the mixture and the substances contained therein.

SECTION 16. Other information

Text of the hazard statements (H) referred to in Sections 2 to 3 of the safety data sheet:

Flam. Liq. 2	Flammable liquid, category 2
Acute Tox.4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific toxicity to target organs - single exposure, category 3
Aquatic Acute 1	Dangerous to the aquatic environment, acute toxicity, category 1
H225	Highly flammable liquid and vapours.
H302	Harmful if ingested.
H312	Harmful by skin contact.
H332	Harmful if inhaled.
H314	Causes severe skin burns and severe eye injuries.
H319	Causes severe eye irritation.
H315	Causes skin irritation.
H335	May irritate the airways.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic organisms.

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LEGEND:

ADR: European Agreement concerning the transport of dangerous goods by road.
CAS NUMBER: Chemical Abstract Service Number.
EC50: Concentration that gives effect to 50% of the population subject to testing.
EC NUMBER: ID number in ESIS (European archive of existing substances).
CLP: Directive EC 1272/2008.
DNEL: Derived No Effect Level.
EmS: Emergency Schedule.
GHS: Globally Harmonised System for classification and labeling of chemicals.
IATA DGR: Regulation for the transport of dangerous goods by the International Air Transport Association.
IC50: Concentration of immobilization of 50% of the population subject to testing.
IMDG: International Maritime Code for Dangerous Goods.
IMO: International Maritime Organization.
INDEX NUMBER: ID number in Annex VI of the CLP.
LC50: Lethal concentration 50%.
LD50: Lethal dose 50%.
OEL: Occupational Exposure Level.
PBT: Persistent, bioaccumulative and toxic according to REACH.
PEC: Predicted Environmental Concentration.
PEL: predictable level of exposure.
PNEC: Predicted No Effect Concentration.
REACH: EC Regulation 1907/2006.
RID: Regulations concerning the international carriage of dangerous goods by rail.
TLV: Threshold Limit Value.
TLV CEILING: Concentration which should not be exceeded during any time of occupational exposure.
TWA STEL: Short Term Exposure Limit.
TWA: Exposure Limit Weighted average.
VOC: Volatile organic compound.
vPvB: Very persistent and very bioaccumulative according to REACH.
WGK: Water hazard class (Germany).

GENERAL BIBLIOGRAPHY:

1. Directive (EC) 1907/2006 of the European Parliament (REACH).
 2. Directive (EC) 1272/2008 of the European Parliament (CLP)
 3. Directive (EC) 790/2009 of the European Parliament (I Atp. CLP).
 4. Directive (EC) 453/2010 of the European Parliament.
 5. Directive (EC) 286/2011 of the European Parliament (II Atp. CLP).
 6. Directive (EC) 618/2012 of the European Parliament (III Atp. CLP)
 7. Regulation (EU) 487/2013 of the European Parliament (IV Atp. CLP)
 8. Regulation (EU) 944/2013 of the European Parliament (V Atp. CLP)
 9. Regulation (EU) 605/2014 of the European Parliament (VI Atp. CLP)
- The Merck Index. - 10th Edition
 - Handling Chemical Safety
 - INRS - Toxicological Sheet
 - Patty - Industrial Hygiene and Toxicology
 - N.I. Sax - Dangerous properties of Industrial Materials 7 Ed.1989 Edition
 - Web Site Agency ECHA.

NOTE TO USER:

The information in this security sheet are based on knowledge available to us at the date of the last revision. Users must verify the suitability and thoroughness of provided information according to each specific use of the product. It should not be construed as a guarantee on any specific product property. Since the use of this product is not subject to our direct control, users must, under their own responsibility, follow the laws and provisions in force concerning health and safety. We do not take responsibility for improper use. Provide adequate training to personnel involved in the use of chemicals.

Changes compared to the previous revision.

Variations have been made to the following sections: 01 / 02 / 03 / 04 / 06 / 08 / 09 / 11 / 12 / 14 / 15 / 16.