SAFETY DATA SHEET

(REACH regulation (EC) n° 1907/2006 - n° 453/2010)

SECTION 1 : IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier
   Product name : DILUANT DE NETTOYAGE - 19468
   Product code : GRAV 011.

1.2. Relevant identified uses of the substance or mixture and uses advised against
   Cleaning diluent.

1.3. Details of the supplier of the safety data sheet
   Registered company name : GRAVOTECH MARKING SAS.
   Address : 56, avenue Jean Jaurès. 10600 La Chapelle Saint Luc. France.
   Telephone : +33 (0)3 25 41 65 65.     Fax : +33 (0)3 25 79 04 25.
   e-mail : info@gravograph.fr
   http://www.gravograph.com

1.4. Emergency telephone number : +33 (0)1 45 42 59 59.

SECTION 2 : HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture
   In compliance with EC regulation No. 1272/2008 and its amendments.
   Flammable liquid, Category 3 (Flam. Liq. 3, H226).
   Eye irritation, Category 2 (Eye Irrit. 2, H319).
   This mixture does not present an environmental hazard. No known or foreseeable environmental damage under standard conditions of use.
   Flammable (R 10).
   This mixture does not present a health hazard with the exception of possible occupational exposure thresholds (see paragraphs 3 and 8).
   This mixture does not present an environmental hazard. No known or foreseeable environmental damage under standard conditions of use.

2.2. Label elements
   In compliance with EC regulation No. 1272/2008 and its amendments.
   Hazard pictograms :
   ![GHS07](image1)
   ![GHS02](image2)

   Signal Word : WARNING
   Hazard statements :
   H226 Flammable liquid and vapour.
   H319 Causes serious eye irritation.
   Precautionary statements - Prevention :
   P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
   P264 Wash hands thoroughly after handling.
   P280 Wear protective gloves/protective clothing/eye protection/face protection.
   Precautionary statements - Response :
   P303 + P361 + P333 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
   P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if
present and easy to do. Continue rinsing.
P337 + P313

Precautionary statements - Storage:
P403 + P235
Store in a well-ventilated place. Keep cool.

Precautionary statements - Disposal:
P501
Dispose of contents/container at a disposal facility in accordance with local regulations.

2.3. Other hazards
The mixture does not contain substances classified as ‘Substances of Very High Concern’ (SVHC) >= 0.1% published by the European Chemicals Agency (ECHA) under article 57 of REACH: http://echa.europa.eu/fr/candidate-list-table
The mixture satisfies neither the PBT nor the vPvB criteria for mixtures in accordance with annex III of the REACH regulations EC 1907/2006.

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures
Composition:

<table>
<thead>
<tr>
<th>Identification</th>
<th>(EC) 1272/2008</th>
<th>67/548/EEC</th>
<th>Note</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 108-65-6</td>
<td>GHS07, GHS02</td>
<td>Xi</td>
<td>[1]</td>
<td>10 &lt;= x % &lt; 25</td>
</tr>
<tr>
<td>EC: 203-603-9</td>
<td>Wng</td>
<td>R36</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACETATE DE 2-METHOXY-1-METHYLETHYLE</td>
<td>Flam. Liq. 3, H226</td>
<td>Eye Irrit. 2, H319</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Information on ingredients:
[1] Substance for which maximum workplace exposure limits are available.

SECTION 4 : FIRST AID MEASURES

As a general rule, in case of doubt or if symptoms persist, always call a doctor.
NEVER induce swallowing by an unconscious person.

4.1. Description of first aid measures

In the event of exposure by inhalation:
In the event of inhalation, move patient to the open air. Keep warm and at rest.
If breathing is irregular or has stopped, proceed with artificial respiration and seek medical attention.

In the event of splashes or contact with eyes:
Wash thoroughly with soft, clean water for 15 minutes holding the eyelids open.
If there is any redness, pain or visual impairment, consult an ophthalmologist.

In the event of splashes or contact with skin:
Wash the skin thoroughly with soap and water or a recognised cleaner.

In the event of swallowing:
In the event of swallowing, if the quantity is small (no more than one mouthful), rinse the mouth with water and consult a doctor.
Keep the person exposed at rest. Do not force vomiting.
Seek medical attention, showing the label.
If swallowed accidentally, call a doctor to ascertain whether observation and hospital care will be necessary. Show the label.

4.2. Most important symptoms and effects, both acute and delayed
No data available.

4.3. Indication of any immediate medical attention and special treatment needed
No data available.

SECTION 5 : FIREFIGHTING MEASURES

Flammable.
Chemical powders, carbon dioxide and other extinguishing gas are suitable for small fires.

5.1. Extinguishing media
Keep packages near the fire cool, to prevent pressurised containers from bursting.

Suitable methods of extinction
In the event of a fire, use:
- sprayed water or water mist
- water with AFFF (Aqueous Film Forming Foam) additive
- foam
- powder
- carbon dioxide (CO2)
  Prevent the effluent of fire-fighting measures from entering drains or waterways.

Unsuitable methods of extinction
- water jet

5.2. Special hazards arising from the substance or mixture
A fire will often produce a thick black smoke. Exposure to decomposition products may be hazardous to health.
- Do not breathe in smoke.
- In the event of a fire, the following may be formed:
  - carbon monoxide (CO)
  - carbon dioxide (CO2)

5.3. Advice for firefighters
Due to the toxicity of the gas emitted on thermal decomposition of the products, fire-fighting personnel are to be equipped with autonomous insulating breathing apparatus.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures
Consult the safety measures listed under headings 7 and 8.

For non first aid worker
Because of the organic solvents contained in the mixture, eliminate sources of ignition and ventilate the area.
Avoid any contact with the skin and eyes.

For first aid worker
First aid workers will be equipped with suitable personal protective equipment (See section 8).

6.2. Environmental precautions
Contain and control the leaks or spills with non-combustible absorbent materials such as sand, earth, vermiculite, diatomaceous earth in drums for waste disposal.
Prevent any material from entering drains or waterways.

6.3. Methods and material for containment and cleaning up
Clean preferably with a detergent, do not use solvents.

6.4. Reference to other sections
No data available.

SECTION 7: HANDLING AND STORAGE

Requirements relating to storage premises apply to all facilities where the mixture is handled.

7.1. Precautions for safe handling
Always wash hands after handling.
Remove and wash contaminated clothing before re-using.
Ensure that there is adequate ventilation, especially in confined areas.

Fire prevention:
- Handle in well-ventilated areas.
- Vapours are heavier than air. They can spread along the ground and form mixtures that are explosive with air.
- Prevent the formation of flammable or explosive concentrations in air and avoid vapor concentrations higher than the occupational exposure limits.
- Prevent the accumulation of electrostatic charges with connections to earth.
- The mixture can become electrostatically charged: always earth during decanting operations. Wear antistatic shoes and clothing and floors should be electrically conductive.
- Use the mixture in premises free of naked flames or other sources of ignition and ensure that electrical equipment is suitably protected.
- Keep packages tightly closed and away from sources of heat, sparks and naked flames.
- Do not use tools which may produce sparks. Do not smoke.
- Prevent access by unauthorised personnel.

Recommended equipment and procedures:
For personal protection, see section 8.
Observe precautions stated on label and also industrial safety regulations.
Avoid eye contact with this mixture.
Packages which have been opened must be reclosed carefully and stored in an upright position.

Prohibited equipment and procedures:
No smoking, eating or drinking in areas where the mixture is used.

7.2. Conditions for safe storage, including any incompatibilities
SAFETY DATA SHEET (REGULATION (EC) n° 1907/2006 - REACH)

DILUANT DE NETTOYAGE - 19468 - GRAV011

Version 3.1 (16-03-2015) - Page 4/8

No data available.

Storage

Keep the container tightly closed in a dry, well-ventilated place.
Keep away from all sources of ignition - do not smoke.
Keep well away from all sources of ignition, heat and direct sunlight.
Avoid accumulation of electrostatic charges.
The floor must be impermeable and form a collecting basin so that, in the event of an accidental spillage, the liquid cannot spread beyond this area.

Packaging

Always keep in packaging made of an identical material to the original.

7.3. Specific end use(s)

No data available.

SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Occupational exposure limits :

| CAS      | VME-mg/m3 | VME-ppm | VLE-mg/m3 | VLE-ppm | Notes :
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>108-65-6</td>
<td>275</td>
<td>50</td>
<td>550</td>
<td>100</td>
<td>Peau</td>
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- Germany - AGW (BAuA - TRGS 900, 21/06/2010) :
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<th>VME</th>
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<th>Notes</th>
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<td>108-65-6</td>
<td>50 ml/m3</td>
<td>270 mg/m3</td>
<td>DFG, EU, Y</td>
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- Belgium (Order of 19/05/2009, 2010) :
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<th>TWA</th>
<th>STEL</th>
<th>Ceiling</th>
<th>Definition</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
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<td>100 ppm</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

- France (INRS - ED984 :2008) :
| CAS      | VME-ppm | VME-mg/m3 | VLE-ppm | VLE-mg/m3 | Notes :
<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>108-65-6</td>
<td>50</td>
<td>275</td>
<td>100</td>
<td>550</td>
<td>-</td>
</tr>
</tbody>
</table>

- Switzerland (SUVA 2009) :
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<th>VME-ppm</th>
<th>VLE-mg/m3</th>
<th>VLE-ppm</th>
<th>Temps :</th>
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<td>275</td>
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- UK / WEL (Workplace exposure limits, EH40/2005, 2007) :
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<th>TWA</th>
<th>STEL</th>
<th>Ceiling</th>
<th>Definition</th>
<th>Criteria</th>
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</thead>
<tbody>
<tr>
<td>108-65-6</td>
<td>50 ppm</td>
<td>100 ppm</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

8.2. Exposure controls

Personal protection measures, such as personal protective equipment

Pictogram(s) indicating the obligation of wearing personal protective equipment (PPE) :

Use personal protective equipment that is clean and has been properly maintained.
Store personal protective equipment in a clean place, away from the work area.
Never eat, drink or smoke during use. Remove and wash contaminated clothing before re-using. Ensure that there is adequate ventilation, especially in confined areas.

- Eye / face protection

Avoid contact with eyes.
Use eye protectors designed to protect against liquid splashes
Before handling, wear safety goggles with protective sides accordance with standard EN166.
In the event of high danger, protect the face with a face shield.
Prescription glasses are not considered as protection.
Individuals wearing contact lenses should wear prescription glasses during work where they may be exposed to irritant vapours.
Provide eyewash stations in facilities where the product is handled constantly.

- Hand protection

Use suitable protective gloves that are resistant to chemical agents in accordance with standard EN374.
Gloves must be selected according to the application and duration of use at the workstation.
Protective gloves need to be selected according to their suitability for the workstation in question : other chemical products that may be handled, necessary physical protections (cutting, pricking, heat protection), level of dexterity required.
Type of gloves recommended :
- Butyl Rubber (isobuty/ene-isoprene copolymer)
Recommended properties:
- Impervious gloves in accordance with standard EN374

**Body protection**
Work clothing worn by personnel shall be laundered regularly.
After contact with the product, all parts of the body that have been soiled must be washed.

**Respiratory protection**
Anti-gas and vapour filter(s) (Combined filters) in accordance with standard EN14387:
- A2 (Brown)
Particle filter according to standard EN143:
- P2 (White)

### SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

**9.1. Information on basic physical and chemical properties**

**General information**

<table>
<thead>
<tr>
<th>Physical state</th>
<th>Fluid liquid.</th>
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</thead>
<tbody>
<tr>
<td>Colour</td>
<td>Colourless.</td>
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<tr>
<td>Odour</td>
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**Important health, safety and environmental information**

<table>
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<th>pH</th>
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</thead>
<tbody>
<tr>
<td>Boiling point/boiling range</td>
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<tr>
<td>Flash Point</td>
<td>30.00 °C.</td>
</tr>
<tr>
<td>Explosive properties, lower explosivity limit (%)</td>
<td>1.5</td>
</tr>
<tr>
<td>Explosive properties, upper explosivity limit (%)</td>
<td>13.8</td>
</tr>
<tr>
<td>Vapour pressure (50°C)</td>
<td>Below 110 kPa (1.10 bar).</td>
</tr>
<tr>
<td>Density</td>
<td>0.893</td>
</tr>
<tr>
<td>Water solubility</td>
<td>Partially soluble.</td>
</tr>
<tr>
<td>Self-ignition temperature</td>
<td>200 °C.</td>
</tr>
</tbody>
</table>

**9.2. Other information**

No data available.

### SECTION 10 : STABILITY AND REACTIVITY

**10.1. Reactivity**

No data available.

**10.2. Chemical stability**

This mixture is stable under the recommended handling and storage conditions in section 7.

**10.3. Possibility of hazardous reactions**

When exposed to high temperatures, the mixture can release hazardous decomposition products, such as carbon monoxide and dioxide, fumes and nitrogen oxide.

**10.4. Conditions to avoid**

Any apparatus likely to produce a flame or to have a metallic surface at high temperature (burners, electric arcs, furnaces etc.) must not be allowed on the premises.
Avoid:
- accumulation of electrostatic charges.
- heating
- heat
- flames and hot surfaces

**10.5. Incompatible materials**

Keep away from:
- oxidising agents
- reducing agents

**10.6. Hazardous decomposition products**

The thermal decomposition may release/form:
- carbon monoxide (CO)
- carbon dioxide (CO2)

### SECTION 11 : TOXICOLOGICAL INFORMATION

**11.1. Information on toxicological effects**
Exposure to vapours from solvents in the mixture in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on kidney, liver and central nervous system.

Symptoms produced will include headaches, numbness, dizziness, fatigue, muscular asthenia and, in extreme cases, loss of consciousness.

Repeated or prolonged contact with the mixture may cause removal of natural oil from the skin resulting in non-allergic contact dermatitis and absorption through the skin.

May have reversible effects on the eyes, such as eye irritation which is totally reversible by the end of observation at 21 days.

Splashes in the eyes may cause irritation and reversible damage.

11.1.1. Substances
No toxicological data available for the substances.

11.1.2. Mixture
No toxicological data available for the mixture.

SECTION 12 : ECOLOGICAL INFORMATION

12.1. Toxicity

12.1.2. Mixtures
No aquatic toxicity data available for the mixture.

12.2. Persistence and degradability
No data available.

12.3. Bioaccumulative potential
No data available.

12.4. Mobility in soil
No data available.

12.5. Results of PBT and vPvB assessment
No data available.

12.6. Other adverse effects
No data available.

German regulations concerning the classification of hazards for water (WGK):

WGK 1 (VvVwS vom 27/07/2005, KBws) : Slightly hazardous for water.

SECTION 13 : DISPOSAL CONSIDERATIONS

Proper waste management of the mixture and/or its container must be determined in accordance with Directive 2008/98/EC.

13.1. Waste treatment methods
Do not pour into drains or waterways.

Waste:
Waste management is carried out without endangering human health, without harming the environment and, in particular without risk to water, air, soil, plants or animals.
Recycle or dispose of waste in compliance with current legislation, preferably via a certified collector or company.
Do not contaminate the ground or water with waste, do not dispose of waste into the environment.

Soiled packaging:
Empty container completely. Keep label(s) on container.
Give to a certified disposal contractor.

SECTION 14 : TRANSPORT INFORMATION


14.1. UN number
1993

14.2. UN proper shipping name
UN1993=FLAMMABLE LIQUID, N.O.S.
(acetate de 2-methoxy-1-methylethyle)

14.3. Transport hazard class(es)
- Classification:
14.4. Packing group

III

14.5. Environmental hazards

- 

14.6. Special precautions for user


<table>
<thead>
<tr>
<th>ADR/RID</th>
<th>Class</th>
<th>Code</th>
<th>Pack gr.</th>
<th>Label</th>
<th>Ident.</th>
<th>LQ</th>
<th>Provis.</th>
<th>EQ</th>
<th>Cat.</th>
<th>Tunnel</th>
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</thead>
<tbody>
<tr>
<td>3</td>
<td>F1</td>
<td>III</td>
<td>3</td>
<td>30</td>
<td>5 L</td>
<td></td>
<td>274 601</td>
<td>E1</td>
<td>3</td>
<td>D/E</td>
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<td>Pack gr.</td>
<td>LQ</td>
<td>EMS</td>
<td>Provis.</td>
<td>EQ</td>
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<tr>
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<td>III</td>
<td>5 L</td>
<td>F-E,S-E</td>
<td>223 274</td>
<td>955</td>
<td>E1</td>
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<td>2°Label</td>
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<td>-</td>
<td>III</td>
<td>Y344</td>
<td>10 L</td>
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<td>-</td>
<td>A3 E1</td>
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<td></td>
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</tr>
</tbody>
</table>

For limited quantities, see part 2.7 of the OACI/IATA and chapter 3.4 of the ADR and IMDG.
For excepted quantities, see part 2.6 of the OACI/IATA and chapter 3.5 of the ADR and IMDG.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

No data available.

SECTION 15 : REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

- Classification and labelling information included in section 2:

The following regulations have been used:
- Directive 1999/45/EC and its adaptations
- EU Regulation No. 1272/2008 amended by EU Regulation No. 758/2013.
- EU Regulation No. 1272/2008 amended by EU Regulation No. 605/2014.

- Container information:

No data available.

- Particular provisions:

No data available.

- German regulations concerning the classification of hazards for water (WGK):

WGK 1 (VwVwS vom 27/07/2005, KBws) : Slightly hazardous for water.

- Standardised American system for the identification of hazards presented by the product in view of emergency procedures (NFPA 704):

NFPA 704, Labelling: Health=2 inflammability=3 instability/reactivity=1 specific risk=none

- Swiss ordinance on the incentive tax on volatile organic compounds:

108-65-6 acétate de 1-méthoxy-2-propyle

15.2. Chemical safety assessment

No data available.
SECTION 16 : OTHER INFORMATION

Since the user's working conditions are not known by us, the information supplied on this safety data sheet is based on our current level of knowledge and on national and community regulations.
The mixture must not be used for other uses than those specified in section 1 without having first obtained written handling instructions.
It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations.
The information in this safety data sheet must be regarded as a description of the safety requirements relating to the mixture and not as a guarantee of the properties thereof.


Hazard symbols :

<table>
<thead>
<tr>
<th>Risk phrase</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>R 10</td>
<td>Flammable.</td>
</tr>
</tbody>
</table>

Title for H, EUH and R indications mentioned in section 3 :

| H226        | Flammable liquid and vapour. |
| H319        | Causes serious eye irritation. |
| R 10        | Flammable. |
| R 36        | Irritating to eyes. |

Abbreviations :

- ADR : European agreement concerning the international carriage of dangerous goods by Road.
- IATA : International Air Transport Association.
- ICAO : International Civil Aviation Organisation
- RID : Regulations concerning the International carriage of Dangerous goods by rail.
- WGK : Wassergefahrgungsklasse (Water Hazard Class).
- GHS02 : Flame
- GHS07 : Exclamation mark