

SAFETY DATA SHEET GRAM'S DIFFERENTIATOR (ACETONE, IMS)

According to Regulation (EU) No 453/2010

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

1.1. Product identifier

Product name GRAM'S DIFFERENTIATOR (ACETONE, IMS)
Product No. PL.7006, PL.7007, PL.7008, PL.7006/25

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

Identified uses Laboratory reagent.

1.3. Details of the supplier of the safety data sheet

Supplier Pro-Lab Diagnostics
3 Bassendale Road
Wirral
Merseyside
CH62 3QL
Tel: 0151 353 1613
Fax: 0151 353 1614
mowen@pro-lab.com

1.4. Emergency telephone number

+44 (0)151 353 1613 Monday to Friday 9.00 to 17.00
+44 (0)7714 429 646 outside the above hours

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification (1999/45/EEC) Xi;R36. F;R11. R66, R67.

Human health

Irritating to eyes. Repeated exposure may cause skin dryness or cracking. Vapours may cause drowsiness and dizziness. See section 11 for additional information on health hazards.

Physical and Chemical Hazards

Highly flammable Vapours may be ignited by a spark, a hot surface or an ember.

2.2. Label elements

Labelling



Irritant



Highly flammable

Risk Phrases

| | |
|-----|---|
| R11 | Highly flammable |
| R36 | Irritating to eyes. |
| R66 | Repeated exposure may cause skin dryness or cracking. |
| R67 | Vapours may cause drowsiness and dizziness. |

Safety Phrases

| | |
|-----|---|
| S9 | Keep container in a well-ventilated place. |
| S16 | Keep away from sources of ignition - No smoking. |
| S25 | Avoid contact with eyes. |
| S26 | In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. |
| S37 | Wear suitable gloves. |
| S51 | Use only in well-ventilated areas. |
| S60 | This material and its container must be disposed of as hazardous waste. |

2.3. Other hazards

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

| | |
|---|--|
| ACETONE | 30-60% |
| CAS-No.: 67-64-1 | EC No.: 200-662-2 |
| Classification (EC 1272/2008) Flam. Liq. 2 - H225 EUH066 Eye Irrit. 2 - H319 STOT SE 3 - H336 | Classification (67/548/EEC) F;R11 Xi;R36 R66 R67 |
| ETHANOL | 30-60% |
| CAS-No.: 64-17-5 | EC No.: 200-578-6 |
| Classification (EC 1272/2008) Flam. Liq. 2 - H225 | Classification (67/548/EEC) F;R11 |
| METHANOL | 1-5% |
| CAS-No.: 67-56-1 | EC No.: 200-659-6 |
| Classification (EC 1272/2008) Flam. Liq. 2 - H225 Acute Tox. 3 - H301 Acute Tox. 3 - H311 Acute Tox. 3 - H331 STOT SE 1 - H370 | Classification (67/548/EEC) F;R11 T;R23/24/25,R39/23/24/25 |

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

Inhalation

Move into fresh air and keep at rest. Get medical attention if any discomfort continues.

Ingestion

NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! DO NOT induce vomiting. Get medical attention immediately. Immediately rinse mouth and provide fresh air.

Skin contact

Promptly wash contaminated skin with soap or mild detergent and water. Promptly remove clothing if soaked through and wash as above. Get medical attention promptly if symptoms occur after washing.

Eye contact

Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

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

Inhalation.

Vapours may cause headache, fatigue, dizziness and nausea.

Ingestion

May cause discomfort if swallowed. May cause stomach pain or vomiting.

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Skin contact

Prolonged contact may cause redness, irritation and dry skin.

Eye contact

May irritate eyes.

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

The severity of the symptoms described will vary dependant of the concentration and the length of exposure.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Extinguishing media

Extinguish with alcohol-resistant foam, carbon dioxide or dry powder.

Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products

During fire, toxic gases (CO, CO₂) are formed.

Unusual Fire & Explosion Hazards

May travel considerable distance to source of ignition and flash back.

Specific hazards

Vapours may be ignited by a spark, a hot surface or an ember. Fire creates: Carbon monoxide (CO). Carbon dioxide (CO₂).

5.3. Advice for firefighters

Special Fire Fighting Procedures

Move container from fire area if it can be done without risk. Water spray should be used to cool containers. Be aware of danger for fire to re-start.

Protective equipment for fire-fighters

Self contained breathing apparatus and full protective clothing must be worn in case of fire.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Wear protective clothing as described in Section 8 of this safety data sheet.

6.2. Environmental precautions

Avoid discharge to the aquatic environment.

6.3. Methods and material for containment and cleaning up

Wear necessary protective equipment. Remove sources of ignition. Stop leak if possible without risk. DO NOT touch spilled material!

Ventilate well. Absorb in vermiculite, dry sand or earth and place into containers. Flush with plenty of water to clean spillage area.

Containers with collected spillage must be properly labelled with correct contents and hazard symbol.

6.4. Reference to other sections

Wear protective clothing as described in Section 8 of this safety data sheet. See section 11 for additional information on health hazards.

For waste disposal, see section 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Read and follow manufacturer's recommendations. Keep away from heat, sparks and open flame. Avoid spilling, skin and eye contact.

Static electricity and formation of sparks must be prevented. Avoid eating, drinking and smoking when using the product. Wash hands after handling.

7.2. Conditions for safe storage, including any incompatibilities

Keep away from heat, sparks and open flame. Store in a cool and well-ventilated place. Keep in original container. Ground container and transfer equipment to eliminate static electric sparks.

Storage Class

Flammable liquid storage.

7.3. Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

| Name | STD | TWA - 8 Hrs | | STEL - 15 Min | | Notes |
|----------|-----|-------------|------------|---------------|------------|-------|
| | | | | | | |
| ACETONE | WEL | 500 ppm | 1210 mg/m3 | 1500 ppm | 3620 mg/m3 | |
| ETHANOL | WEL | 1000 ppm | 1920 mg/m3 | | | |
| METHANOL | WEL | 200 ppm | 266 mg/m3 | 250 ppm | 333 mg/m3 | Sk |

WEL = Workplace Exposure Limit.
Sk = Can be absorbed through skin.

8.2. Exposure controls

Protective equipment



Hand protection

Use protective gloves. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material.

Eye protection

Wear approved safety goggles.

Other Protection

Provide eyewash station.

Hygiene measures

DO NOT SMOKE IN WORK AREA! Promptly remove any clothing that becomes contaminated. Wash promptly with soap & water if skin becomes contaminated. When using do not eat, drink or smoke. Wash hands after handling.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

| | |
|------------|-------------------|
| Appearance | Clear liquid. |
| Colour | Colourless. |
| Odour | Odour of alcohol. |
| Solubility | Soluble in water. |

9.2. Other information

Not determined.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

10.2. Chemical stability

Stable under normal temperature conditions and recommended use.

10.3. Possibility of hazardous reactions

Hazardous Polymerisation

Will not polymerise.

10.4. Conditions to avoid

Avoid heat, flames and other sources of ignition. Avoid contact with strong oxidisers.

10.5. Incompatible materials

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Materials To Avoid

Strong oxidising substances.

10.6. Hazardous decomposition products

During fire, toxic gases (CO, CO₂) are formed.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Inhalation

Vapours may cause drowsiness and dizziness.

Ingestion

May cause discomfort if swallowed. May cause stomach pain or vomiting. May cause nausea, headache, dizziness and intoxication.

Skin contact

Repeated exposure may cause skin dryness or cracking.

Eye contact

May irritate eyes.

Toxicological information on ingredients.

METHANOL (CAS: 67-56-1)

Acute toxicity:

Acute Toxicity (Oral LD50)

> 1187 mg/kg Rat

REACH dossier information

Acute Toxicity (Inhalation LC50)

> 115.9 mg/l (vapours) Rat 4 hours

REACH dossier information

ETHANOL (CAS: 64-17-5)

Acute toxicity:

Acute Toxicity (Oral LD50)

10470 mg/kg Rat

REACH dossier information

Acute Toxicity (Inhalation LC50)

116.9 mg/l (vapours) Rat 4 hours

REACH dossier information

ACETONE (CAS: 67-64-1)

Acute toxicity:

Acute Toxicity (Oral LD50)

5800 mg/kg Rat

REACH dossier information

Acute Toxicity (Dermal LD50)

> 1580 mg/kg Rabbit

REACH dossier information

Acute Toxicity (Inhalation LC50)

76 mg/l (vapours) Rat 4 hours

REACH dossier information

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SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

The product is not expected to be hazardous to the environment.

12.1. Toxicity

Ecological information on ingredients.

METHANOL (CAS: 67-56-1)

96 hours 15400 mg/l *Lepomis macrochirus* (Bluegill)

REACH dossier information

Acute Toxicity - Aquatic Invertebrates

EC50 48 hours > 10000 mg/l *Daphnia magna*

REACH dossier information

Acute Toxicity - Aquatic Plants

EC50 96 hours ~ 22000 mg/l Freshwater algae

REACH dossier information

ETHANOL (CAS: 64-17-5)

Acute Toxicity - Fish

LC50 96 hours 14.2 mg/l *Pimephales promelas* (Fat-head Minnow)

REACH dossier information

Acute Toxicity - Aquatic Invertebrates

EC50 48 hours 5012 mg/l *Daphnia magna*

REACH dossier information

Acute Toxicity - Aquatic Plants

EC50 72 hours 275 mg/l Freshwater algae

REACH dossier information

ACETONE (CAS: 67-64-1)

Acute Toxicity - Fish

LC50 96 hours 5540 mg/l *Onchorhynchus mykiss* (Rainbow trout)

REACH dossier information

Acute Toxicity - Aquatic Invertebrates

EC50 48 hours 12700 mg/l *Daphnia magna*

REACH dossier information

Acute Toxicity - Aquatic Plants

NOEC 192 hours 530 mg/l *Microcystis aeruginosa*

REACH dossier information

12.2. Persistence and degradability

Degradability

There are no data on the degradability of this product.

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Ecological information on ingredients.

METHANOL (CAS: 67-56-1)

Biodegradation

Water Degradation (71.5%) 5 days
REACH dossier information
Degradation (95%) 20 days
REACH dossier information

ETHANOL (CAS: 64-17-5)

Biodegradation

Water Degradation (96%) 20 days
REACH dossier information

ACETONE (CAS: 67-64-1)

Biodegradation

Water and Sediment Degradation (90%) 28 days
REACH dossier information
The substance is readily biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential

No data available on bioaccumulation.

Ecological information on ingredients.

ACETONE (CAS: 67-64-1)

Bioaccumulative potential

Will not bio-accumulate.

12.4. Mobility in soil

Mobility:

The product is soluble in water.

12.5. Results of PBT and vPvB assessment

Not determined.

Ecological information on ingredients.

ACETONE (CAS: 67-64-1)

Not Classified as PBT/vPvB by current EU criteria.

12.6. Other adverse effects

Not determined.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Dispose of waste and residues in accordance with local authority requirements. Recover and reclaim or recycle, if practical.

SECTION 14: TRANSPORT INFORMATION

14.1. UN number

| | |
|----------------------|------|
| UN No. (ADR/RID/ADN) | 1993 |
| UN No. (IMDG) | 1993 |
| UN No. (ICAO) | 1993 |

14.2. UN proper shipping name

| | |
|----------------------|---|
| Proper Shipping Name | FLAMMABLE LIQUID, N.O.S. (ACETONE, ETHANOL) |
|----------------------|---|

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14.3. Transport hazard class(es)

| | |
|---------------------|-----------------------------|
| ADR/RID/ADN Class | 3 |
| ADR/RID/ADN Class | Class 3: Flammable liquids. |
| ADR Label No. | 3 |
| IMDG Class | 3 |
| ICAO Class/Division | 3 |
| Transport Labels | |



14.4. Packing group

| | |
|---------------------------|----|
| ADR/RID/ADN Packing group | II |
| IMDG Packing group | II |
| ICAO Packing group | II |

14.5. Environmental hazards

Environmentally Hazardous Substance/Marine Pollutant
No.

14.6. Special precautions for user

| | |
|-------------------------|--|
| EMS | F-E, S-E |
| Emergency Action Code | +3YE |
| Hazard No. (ADR) | 33 |
| Hazard No. (ADR) | 33 Highly flammable liquid (flash-point below 23°C). |
| Tunnel Restriction Code | (D/E) |

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

SECTION 15: REGULATORY INFORMATION

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

Statutory Instruments

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (S.I 2009 No. 716).

Approved Code Of Practice

Classification and Labelling of Substances and Preparations Dangerous for Supply.

Guidance Notes

Workplace Exposure Limits EH40.

EU Legislation

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments.

15.2. Chemical Safety Assessment

No chemical safety assessment has been carried out.

SECTION 16: OTHER INFORMATION

GRAM'S DIFFERENTIATOR (ACETONE, IMS)

Revision Comments

Supplier's contact details amended. Reissued according to Regulation (EU) No 453/2010.

Revision Date 11-2011

Revision 4

Supersedes date 08-2010

Risk Phrases In Full

R11 Highly flammable

R36 Irritating to eyes.

R66 Repeated exposure may cause skin dryness or cracking.

R23/24/25 Toxic by inhalation, in contact with skin and if swallowed.

R39/23/24/25 Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

R67 Vapours may cause drowsiness and dizziness.

Hazard Statements In Full

H370 Causes damage to organs <<Organs>>.

H319 Causes serious eye irritation.

H225 Highly flammable liquid and vapour.

H336 May cause drowsiness or dizziness.

EUH066 Repeated exposure may cause skin dryness or cracking.

H331 Toxic if inhaled.

H301 Toxic if swallowed.

H311 Toxic in contact with skin.

Disclaimer

The information in this safety data sheet was obtained from current and reliable sources. However, the data is provided without warranty, expressed or implied, regarding its correctness or accuracy. Since the conditions for use, handling, storage and disposal of this product are beyond Pro-Lab Diagnostics control, it is the users responsibility to perform thorough testing of this product when used in combination with any other product. It is suggested that users familiarise themselves with this safety data sheet before handling the product.