SAFETY DATA SHEET

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

1.1. Product identifier

Product name: AF MATRICE ERODABLE PERFORMANCE OM BLANC GRIS
Product code: 987 BLANC GRIS.

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

1.3. Details of the supplier of the safety data sheet

Registered company name: SEA 2 - ORANGE MARINE.
Address: 46 QUAI FRANCOIS MITTERRAND .13600.LA CIOTAT.FRANCE.
Telephone: 04 26 78 20 71.     Fax :
serviceclient@orange-marine.com
www.orange-marine.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).
Skin irritation, Category 2 (Skin Irrit. 2, H315).
Eye irritation, Category 2 (Eye Irrit. 2, H319).
Skin sensitisation, Category 1 (Skin Sens. 1, H317).
Specific target organ toxicity (repeated exposure), Category 2 (STOT RE 2, H373).
Hazardous to the aquatic environment - Acute hazard, Category 1 (Aquatic Acute 1, H400).
Hazardous to the aquatic environment - Chronic hazard, Category 1 (Aquatic Chronic 1, H410).

2.2. Label elements

Biocidal mixture (see section 15).
Mixture for spray application.

In compliance with EC regulation No. 1272/2008 and its amendments.

Hazard pictograms:

GHS07  GHS09  GHS02  GHS08

Signal Word: WARNING

Product identifiers:
EC 215-535-7   XYLENE
650-015-00-7   ROSIN
EC 235-180-1   ZINEB

Hazard statements:
H226 Flammable liquid and vapour.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H373 May cause damage to organs through prolonged or repeated exposure.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements - General:
P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P103 Read label before use.

Precautionary statements - Prevention:
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P264 Wash ... thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary statements - Response:
P302 + P352 IF ON SKIN: Wash with plenty of water/...
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P314 Get medical advice/attention if you feel unwell.
P321 Specific treatment (consult a doctor with the msds product).
P332 + P313 If skin irritation occurs: Get medical advice/attention.
P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.
P337 + P313 If eye irritation persists: Get medical advice/attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.
P391 Collect spillage.

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

Precautionary statements - Disposal:
P501 Dispose of contents/container to a licensed disposal facility

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 annexe XIII of the REACH regulations EC 1907/2006.

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

<table>
<thead>
<tr>
<th>Composition</th>
<th>Identification</th>
<th>(EC) 1272/2008</th>
<th>Note</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>INDEX: 029-015-00-0</td>
<td>CAS: 1111-67-7</td>
<td>GHS09 Wng Aquatic Acute 1, H400 M Acute = 10 Aquatic Chronic 1, H410 M Chronic = 10 EUH:032</td>
<td></td>
<td>10 &lt;= x % &lt; 25</td>
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<tr>
<td>INDEX: 650-015-00-7</td>
<td>CAS: 8050-09-7</td>
<td>GHS07 Wng Skin Sens. 1, H317</td>
<td>[1]</td>
<td>2.5 &lt;= x % &lt; 10</td>
</tr>
<tr>
<td>INDEX: 649-356-00-4</td>
<td>CAS: 64742-95-6</td>
<td>GHS08 Dgr Asp. Tox. 1, H304</td>
<td>P</td>
<td>2.5 &lt;= x % &lt; 10</td>
</tr>
</tbody>
</table>

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**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 splashes or contact with eyes:
- Wash thoroughly with fresh, 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:
- Remove contaminated clothing and wash the skin thoroughly with soap and water or a recognised cleaner.
- Watch out for any remaining product between skin and clothing, watches, shoes, etc.
- In the event of an allergic reaction, seek medical attention.
- If the contaminated area is widespread and/or there is damage to the skin, a doctor must be consulted or the patient transferred to hospital.

In the event of swallowing:
- Do not give the patient anything orally.
- 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 immediately, 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

In the event of fire, use specifically suitable extinguishing agents. Never use water.

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
- halon
- foam
- multipurpose ABC powder
- BC powder
- carbon dioxide (CO2)

Prevent the effluent of fire-fighting measures from entering drains or waterways.

Unsuitable methods of extinction
In the event of a fire, do not use:
- water
- 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
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.
If the product contaminates waterways, rivers or drains, alert the relevant authorities in accordance with statutory procedures
Use drums to dispose of collected waste in compliance with current regulations (see section 13).

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.
Individuals with a history of skin sensitisation should not, under any circumstance, handle this mixture.

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.
Remove contaminated clothing and protective equipment before entering eating 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.
Never pour water into this mixture.
Where the personnel must carry out work in a booth, whether for spraying or otherwise, the ventilation may be inadequate to control particles and solvent vapors in every case.
It is therefore recommended that personnel wear masks with a compressed air supply during spraying operations until the concentration of particles and solvent vapors has fallen below the exposure limits.
Avoid skin and eye contact with this mixture.
Avoid exposure - obtain special instructions before use.
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.
Never open the packages under pressure.

**7.2. Conditions for safe storage, including any incompatibilities**

No data available.

**Storage**

Keep out of reach of children.
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:**


<table>
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<tr>
<th>CAS</th>
<th>VME-mg/m³</th>
<th>VME-ppm</th>
<th>VLE-mg/m³</th>
<th>VLE-ppm</th>
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<td>442</td>
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<td>Peau</td>
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<tr>
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<td>442</td>
<td>100</td>
<td>884</td>
<td>200</td>
<td>Peau</td>
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- **ACGIH TLV (American Conference of Governmental Industrial Hygienists, Threshold Limit Values, 2010):**

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<tr>
<th>CAS</th>
<th>TW A</th>
<th>STEL</th>
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<th>Definition</th>
<th>Criteria</th>
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<td>-</td>
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<td>100-41-4</td>
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- **Germany - AGW (BAuA - TRGS 900, 21/06/2010):**

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- **France (INRS - ED984 :2012):**

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<td>442</td>
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<td>4 Bis, 84, *</td>
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</table>

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AF MATRICE ERODABLE PERFORMANCE OM BLANC GRIS - 987 BLANC GRIS

8.2. Exposure controls

Personal protection measures, such as personal protective equipment

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 according to standard EN166.

In the event of high danger, protect the face with a face shield.

When spraying, wear a face shield in accordance with standard EN166.

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:
- PVA (Polyvinyl alcohol)

Recommended properties:
- Impervious gloves in accordance with standard EN374

- Body protection

Avoid skin contact.

Wear suitable protective clothing.

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.

SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

General information:

Physical state:
Fluid liquid.

Important health, safety and environmental information:

pH:
Not relevant.

Boiling point/boiling range:
Not specified.

Flash Point:
26.00 °C.

Vapour pressure (50°C):
Below 110 kPa (1.10 bar).

Density:
> 1

Water solubility:
Insoluble.

Melting point/melting range:
Not specified.

Self-ignition temperature:
Not specified.

 Decomposition point/decomposition range:
Not specified.
9.2. Other information
VOC (g/l) : 424.74

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
- humidity

Protect from moisture. Reaction with water can cause an exothermic reaction.

10.5. Incompatible materials
Keep away from :
- water

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.

May cause irreversible damage to the skin; namely inflammation of the skin or the formation of erythema and eschar or oedema following exposure up to four hours.

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

May cause an allergic reaction by skin contact.

May cause severe damage to organs in the event of repeated or prolonged exposure.

11.1.1. Substances
No toxicological data available for the substances.

11.1.2. Mixture
No toxicological data available for the mixture.

Monograph(s) from the IARC (International Agency for Research on Cancer) :
- CAS 1330-20-7 : IARC Group 3 : The agent is not classifiable as to its carcinogenicity to humans.
- CAS 100-41-4 : IARC Group 2B : The agent is possibly carcinogenic to humans.
- CAS 12122-67-7 : IARC Group 3 : The agent is not classifiable as to its carcinogenicity to humans.

SECTION 12 : ECOLOGICAL INFORMATION

Very toxic to aquatic life with long lasting effects.

The product must not be allowed to run into drains or waterways.
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.

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
1263

14.2. UN proper shipping name
UN1263=PAINT (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base) or PAINT RELATED MATERIAL (including paint thinning and reducing compound)

14.3. Transport hazard class(es)
- Classification:

14.4. Packing group
III

14.5. Environmental hazards
- Environmentally hazardous material:

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>163 367 640E 650E</td>
<td>E1</td>
<td>3</td>
<td>D/E</td>
<td></td>
</tr>
</tbody>
</table>
14.7. Transport in bulk according to Annex II of Marpol 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:
  - EU Regulation No. 1272/2008 amended by EU Regulation No. 2016/1179. (ATP 9)
  
  - Container information:
    Containers to be fitted with a tactile warning of danger (see EC Regulation No. 1272/2008, Annex II, Part 3).
  
  - Particular provisions:
    No data available.


<table>
<thead>
<tr>
<th>Name</th>
<th>CAS</th>
<th>%</th>
<th>Product-type</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZINEB</td>
<td>12122-67-7</td>
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<tr>
<td>COPPER THIOCYANATE</td>
<td>1111-67-7</td>
<td>200.00 g/kg</td>
<td>21</td>
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</table>

Product-type 21 : Antifouling products.

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.

Wording of the phrases mentioned in section 3:

- H225 Highly flammable liquid and vapour.
- H226 Flammable liquid and vapour.
- H228 Flammable solid.
- H304 May be fatal if swallowed and enters airways.
- H312 Harmful in contact with skin.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.
- H332 Harmful if inhaled.
- H335 May cause respiratory irritation.
- H361d Suspected of damaging the unborn child.
- H373 May cause damage to organs through prolonged or repeated exposure.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.
- EUH032 Contact with acids liberates very toxic gas.
Abbreviations:

CMR: Carcinogenic, mutagenic or reprotoxic.
ADR: European agreement concerning the international carriage of dangerous goods by Road.
IMDG: International Maritime Dangerous Goods.
IATA: International Air Transport Association.
ICAO: International Civil Aviation Organisation
RID: Regulations concerning the International carriage of Dangerous goods by rail.
WGK: Wassergefahrdungsklasse (Water Hazard Class).
GHS02: Flame
GHS07: Exclamation mark
GHS08: Health hazard
GHS09: Environment
PBT: Persistent, bioaccumulable and toxic.
vPvB: Very persistent, very bioaccumulable.
SVHC: Substances of very high concern.