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

· Product identifier
  · Trade name: B2311 BOYSEN OIL TINTING COLOR BURNT UMBER

· Relevant identified uses of the substance or mixture and uses advised against
  · Application of the substance / the preparation
    Boysen Oil Tinting Colors are concentrated alkyd based tinting paints for oil, alkyd and enamel paints. They are used to produce tints from pastel to medium shades, as well as with primers, sealers and undercoats.

· Details of the supplier of the safety data sheet
  · Manufacturer/Supplier: Pacific Paint (Boysen) Philippines, Inc.
    292 D. Tuazon St., Quezon City
    1115 Philippines

· Further information obtainable from: Product safety department

· Emergency telephone number:
  Telephone Nos. : +63 2 364 3505; +63 2 365 0561
  Facsimile Nos. : +63 2 367 8878; +63 2 364 0472
  Email Address : inquiry@boysen.com.ph
  Website Address : www.boysen.com.ph

2 Hazards identification

· Classification of the substance or mixture
  · Classification according to Regulation (EC) No 1272/2008

  GHS02 flame
  Flam. Liq. 3 H226 Flammable liquid and vapour.

  GHS08 health hazard
  Carc. 1B H350 May cause cancer.
  Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.

· Classification according to Directive 67/548/EEC or Directive 1999/45/EC
  T; Toxic
  R45-46: May cause cancer. May cause heritable genetic damage.

  Xn; Harmful
  R65: Harmful: may cause lung damage if swallowed.
  R10: Flammable.

· Information concerning particular hazards for human and environment:
  The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

· Classification system:
  The classification is according to the latest editions of the EU-lists, and extended by company and literature data.
Trade name: B2311 BOYSEN OIL TINTING COLOR BURNT UMBER

· Label elements

· Labelling according to EU guidelines:
The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

· Code letter and hazard designation of product:

![T Toxic](image)

· Hazard-determining components of labelling:
Kerosine (petroleum), hydrodesulfurized
Naphtha (petroleum), hydrotreated heavy

· Risk phrases:
45 May cause cancer.
46 May cause heritable genetic damage.
10 Flammable.
65 Harmful: may cause lung damage if swallowed.

· Safety phrases:
53 Avoid exposure - obtain special instructions before use.
1/2 Keep locked up and out of the reach of children.
13 Keep away from food, drink and animal feedingstuffs.
20 When using do not eat or drink.
29/56 Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.
45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

· Special labelling of certain preparations:
Contains 2-butanone oxime. May produce an allergic reaction.

· Other hazards

· Results of PBT and vPvB assessment
· PBT: Not applicable.
· vPvB: Not applicable.

3 Composition/information on ingredients

· Chemical characterization: Mixtures
· Description: Mixture of substances listed below with nonhazardous additions.

· Dangerous components:

<table>
<thead>
<tr>
<th>CAS: 64742-81-0</th>
<th>EINECS: 265-184-9</th>
<th>Kerosine (petroleum), hydrodesulfurized</th>
</tr>
</thead>
<tbody>
<tr>
<td>Xn R65 Asp. Tox. 1, H304</td>
<td>10-25%</td>
<td></td>
</tr>
</tbody>
</table>

(Contd. on page 3)
Trade name: B2311 BOYSEN OIL TINTING COLOR BURNT UMBER

CAS: 64742-48-9  EINECS: 265-150-3  Naphtha (petroleum), hydrotreated heavy  T Carc. Cat. 2, Muta. Cat. 2 R45-46;  Xn R65  Carc. 1B, H350; Asp. Tox. 1, H304  2.5-10%

CAS: 95-63-6  EINECS: 202-436-9  1,2,4-trimethylbenzene  Xn R20;  Xi R36/37/38;  N R51/53  R10  Flamm. Liq. 3, H226;  Aquatic Chronic 2, H411;  Acute Tox. 4, H332;  Skin Irrit. 2, H315;  Eye Irrit. 2, H319;  STOT SE 3, H335  ≤ 2.5%

CAS: 96-29-7  EINECS: 202-496-6  2-butanone oxime  Xn R21;  Xi R41;  Xi R43  Carc. 2, H351;  Eye Dam. 1, H318;  Acute Tox. 4, H312;  Skin Sens. 1, H317  ≤ 2.5%

· Additional information:
For the wording of the listed risk phrases refer to section 16.

12713-03-0  Burnt powder umber  25-50%

4 First aid measures

· Description of first aid measures
  · After inhalation: Supply fresh air; consult doctor in case of complaints.
  · After skin contact: Immediately wash with water and soap and rinse thoroughly.
  · After eye contact: Rinse opened eye for several minutes under running water.
  · After swallowing: If symptoms persist consult doctor.

· Information for doctor:
  · Most important symptoms and effects, both acute and delayed No further relevant information available.
  · Indication of any immediate medical attention and special treatment needed
    No further relevant information available.

5 Firefighting measures

· Extinguishing media
  · Suitable extinguishing agents: CO2, sand, extinguishing powder. Do not use water.
  · For safety reasons unsuitable extinguishing agents: Water with full jet

· Special hazards arising from the substance or mixture No further relevant information available.

· Advice for firefighters
  · Protective equipment: No special measures required.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures
  Wear protective equipment. Keep unprotected persons away.

· Environmental precautions:
  Do not allow product to reach sewage system or any water course.
  Inform respective authorities in case of seepage into water course or sewage system.
  Do not allow to enter sewers/ surface or ground water.

· Methods and material for containment and cleaning up:
  Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  Dispose contaminated material as waste according to item 13.
  Ensure adequate ventilation.
  Do not flush with water or aqueous cleansing agents
Trade name: B2311 BOYSEN OIL TINTING COLOR BURNT UMBER

7 Handling and storage

· Reference to other sections
  See Section 7 for information on safe handling.
  See Section 8 for information on personal protection equipment.
  See Section 13 for disposal information.

· Handling:
  · Precautions for safe handling
    Ensure good ventilation/exhaustion at the workplace.
    Open and handle receptacle with care.
    Prevent formation of aerosols.
  · Information about fire - and explosion protection:
    Keep ignition sources away - Do not smoke.
    Protect against electrostatic charges.
    Keep respiratory protective device available.

· Conditions for safe storage, including any incompatibilities
  · Storage:
    · Requirements to be met by storerooms and receptacles: No special requirements.
    · Information about storage in one common storage facility: Not required.
    · Further information about storage conditions: Keep container tightly sealed.
  · Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

· Additional information about design of technical facilities: No further data; see item 7.

· Control parameters
  · Ingredients with limit values that require monitoring at the workplace:
    64742-81-0 Kerosine (petroleum), hydrodesulfurized
    REL (USA) 100 mg/m³
    TLV (USA) 200 mg/m³
    as total hydrocarbon vapor; Skin; P

· Additional information: The lists valid during the making were used as basis.

· Exposure controls
  · Personal protective equipment:
    · General protective and hygienic measures:
      Keep away from foodstuffs, beverages and feed.
      Immediately remove all soiled and contaminated clothing
      Wash hands before breaks and at the end of work.
      Store protective clothing separately.
    · Respiratory protection:
      In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

· Protection of hands:
  Protective gloves
Trade name: B2311 BOYSEN OIL TINTING COLOR BURNT UMBER

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**
  The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- **Penetration time of glove material**
  The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**
  Tightly sealed goggles

### 9 Physical and chemical properties

<table>
<thead>
<tr>
<th>Information on basic physical and chemical properties</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General Information</strong></td>
</tr>
<tr>
<td><strong>Appearance:</strong></td>
</tr>
<tr>
<td>- Form: Liquid</td>
</tr>
<tr>
<td>- Colour: According to product specification</td>
</tr>
<tr>
<td>- Odour: Characteristic</td>
</tr>
<tr>
<td>- Odour threshold: Not determined.</td>
</tr>
<tr>
<td><strong>pH-value:</strong></td>
</tr>
<tr>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Change in condition</strong></td>
</tr>
<tr>
<td>- Melting point/Melting range: Undetermined.</td>
</tr>
<tr>
<td>- Boiling point/Boiling range: 145°C</td>
</tr>
<tr>
<td><strong>Flash point:</strong></td>
</tr>
<tr>
<td>35°C</td>
</tr>
<tr>
<td><strong>Flammability (solid, gaseous):</strong> Not applicable.</td>
</tr>
<tr>
<td><strong>Ignition temperature:</strong></td>
</tr>
<tr>
<td>240°C</td>
</tr>
<tr>
<td><strong>Decomposition temperature:</strong></td>
</tr>
<tr>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Self-igniting:</strong></td>
</tr>
<tr>
<td>Product is not selfigniting.</td>
</tr>
<tr>
<td><strong>Danger of explosion:</strong></td>
</tr>
<tr>
<td>Product is not explosive. However, formation of explosive air/vapour mixtures are possible.</td>
</tr>
<tr>
<td><strong>Explosion limits:</strong></td>
</tr>
<tr>
<td>- Lower: Not determined.</td>
</tr>
<tr>
<td>- Upper: Not determined.</td>
</tr>
<tr>
<td><strong>Vapour pressure:</strong></td>
</tr>
<tr>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Density:</strong></td>
</tr>
<tr>
<td>1.34 - 1.44 Kg/Li</td>
</tr>
<tr>
<td><strong>Relative density</strong></td>
</tr>
<tr>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Vapour density</strong></td>
</tr>
<tr>
<td>Not determined.</td>
</tr>
</tbody>
</table>

(Contd. of page 6)
Trade name: **B2311 BOYSEN OIL TINTING COLOR BURNT UMBER**

- **Evaporation rate**: Not determined.
- **Solubility in / Miscibility with water**: Not miscible or difficult to mix.
- **Segregation coefficient (n-octanol/water)**: Not determined.
- **Viscosity**: 88 - 92 KU
  - **Dynamic**: Not determined.
  - **Kinematic**: Not determined.
- **Solvent content**: Organic solvents: 22.5 %
  - VOC (EC): 125 g/Li
- **Solids content**: 38.3 %
- **Other information**: No further relevant information available.

### 10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
  - **Thermal decomposition / conditions to be avoided**: No decomposition if used according to specifications.
  - **Possibility of hazardous reactions** No dangerous reactions known.
  - **Conditions to avoid**: No further relevant information available.
  - **Incompatible materials**: No further relevant information available.
  - **Hazardous decomposition products**: No dangerous decomposition products known.

### 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity**
  - **LD/LC50 values relevant for classification**:
    - 64742-48-9 Naphtha (petroleum), hydrotreated heavy
    - **Oral LD50**: >5000 mg/kg (rat)
    - **Dermal LD50**: >3000 mg/kg (rab)
  - **Primary irritant effect**:
    - **on the skin**: Cause mild irritation
    - **on the eye**: No irritating effect.
  - **Sensitization**: No sensitizing effects known.
  - **Additional toxicological information**:
    The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
    - **Carcinogenic**.
    - The product can cause inheritable damage.

### 12 Ecological information

- **Toxicity**
- **Aquatic toxicity**: No further relevant information available.
- **Persistence and degradability** No further relevant information available.
Trade name: B2311 BOYSEN OIL TINTING COLOR BURNT UMBER

- **Behaviour in environmental systems:**
  - **Bioaccumulative potential** No further relevant information available.
  - **Mobility in soil** No further relevant information available.

- **Additional ecological information:**
  - **General notes:**
    - Water hazard class 3 (German Regulation) (Self-assessment): extremely hazardous for water
    - Do not allow product to reach ground water, water course or sewage system, even in small quantities.
    - Danger to drinking water if even extremely small quantities leak into the ground.
  - **Results of PBT and vPvB assessment**
    - **PBT:** Not applicable.
    - **vPvB:** Not applicable.

- **Other adverse effects** No further relevant information available.

---

### 13 Disposal considerations

- **Waste treatment methods**
  - **Recommendation**
    - Must not be disposed together with household garbage. Do not allow product to reach sewage system.

- **Uncleaned packaging:**
  - **Recommendation:** Disposal must be made according to official regulations.

---

### 14 Transport information

- **UN-Number**
  - ADR, IMDG, IATA
    - UN1993

- **UN proper shipping name**
  - **ADR**
    - 1993 FLAMMABLE LIQUID, N.O.S. (Naphtha (petroleum), hydrodesulfurized heavy), special provision 640E
  - **IMDG, IATA**
    - FLAMMABLE LIQUID, N.O.S. (Naphtha (petroleum), hydrodesulfurized heavy)

- **Transport hazard class(es)**
  - **ADR**
    - **Class** 3 (F1) Flammable liquids.
    - **Label** 3

  - **IMDG, IATA**
    - **Class** 3 Flammable liquids.
    - **Label** 3

(Contd. on page 8)
Trade name: B2311 BOYSEN OIL TINTING COLOR BURNT UMBER

| · Packing group       | III |
| · ADR, IMDG, IATA     |     |

| · Environmental hazards: |
| · Marine pollutant:     | No  |

| · Special precautions for user |
| · Danger code (Kemler):      | Warning: Flammable liquids. |
| · EMS Number:                | F-E,S,E |

| · Transport group according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |
| · Transport/Additional information: |
| · ADR |
| · Tunnel restriction code | D/E |
| · UN "Model Regulation":  |
| · UN1993, FLAMMABLE LIQUID, N.O.S. (Naphtha (petroleum), hydrodesulfurized heavy), special provision 640E, 3, III |

15 Regulatory information

| · Safety, health and environmental regulations/legislation specific for the substance or mixture |
| · Philippines Inventory of Chemicals and Chemical Substances |
| · All ingredients are listed. |

| · National regulations: |
| · Information about limitation of use: |
| · Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation. Exceptions can be made by the authorities in certain cases. |
| · Chemical safety assessment: A Chemical Safety Assessment has not been carried out. |

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

| · Relevant phrases |
| · H226 Flammable liquid and vapour. |
| · 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. |
| · H318 Causes serious eye damage. |
| · H319 Causes serious eye irritation. |
| · H332 Harmful if inhaled. |
| · H335 May cause respiratory irritation. |
| · H350 May cause cancer. |
| · H351 Suspected of causing cancer. |
| · H411 Toxic to aquatic life with long lasting effects. |
| · R10 Flammable. |
| · R20 Harmful by inhalation. |
Trade name: B2311 BOYSEN OIL TINTING COLOR BURNT UMBER

R21 Harmful in contact with skin.
R36/37/38 Irritating to eyes, respiratory system and skin.
R41 Risk of serious damage to eyes.
R43 May cause sensitisation by skin contact.
R45 May cause cancer.
R46 May cause heritable genetic damage.
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R65 Harmful: may cause lung damage if swallowed.

Department issuing MSDS:
Safety, Health and Environment Department
Gretchen A. Fontejon - g_fontejon@boysen.com.ph

Abbreviations and acronyms:
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
ICAO: International Civil Aviation Organization
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent

* Data compared to the previous version altered.

12.05.2011