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

1.1 Product identifier

Product Code: ART. ABO
Trade Name: AURORA BOREALE

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

Description/Usage: PAINTING PRODUCT - PHOTOLUMINSCENT FINISHING

1.3 Details of the supplier of the safety data sheet

Supplier: Giorgio Graesan & Friends s.a.s. Di Shila Graesan
Address: Via Bergamo n. 24
Place and country: 20037 - Paderno Dugnano MI (IT)
Phone: + 39 02 99039560
Fax: + 39 02 99039590
Email of the person responsible: tecnico@giorgiograesan.it

1.4 Emergency telephone number

For urgent inquiries refer to + 39 02 99039541

2 Hazards identification

2.1 Classification of the substance or mixture

The product is not classified as hazardous as per Directive (EC) 1272/2008 (CLP) (and subsequent amendments). However, since the product contains dangerous substances in such concentrations that have to be declared under section 3, it requires a safety data sheet with appropriate information, in accordance with Directive (EC)1907/2006 and subsequent amendments.

2.2 Directive 1272/2008 (CLP) and subsequent amendments

Classification and hazard statements: Not applicable

2.3 Label elements

Danger label in accordance with Directive (EC) 1272/2008 (CLP and subsequent amendments.
Hazard pictograms: Not applicable
Warnings: Not applicable

2.4 Hazard statements

EUH210: The safety data sheet is available upon request
EUH208: It contains: Mixture of: 5-chloro-2-methyl-2h-isothiazol-3-one (EC no.247-500-7); 2-methyl -2H-isothiazol-3-one (EC no.220-239-6)(3:1).
It may cause an allergic reaction.

2.5 Safety advice

P101: If medical advice is needed, keep at the disposal the container or the label of the product.
P102: Keep out of the reach of children.
The safety data sheet is available on www.giorgiograesan.it

2.6 Other hazards

Based on available data, the product does not contain any PBT or vPvB in percentage higher than 0.1%.

3 Composition / information on ingredients

3.1 Substances: Non relevant information.

3.2 Mixtures. conc.% Classification 1272/2008 (CLP)

Mixture of: 5-chloro-2-methyl-2h-isothiazol-3-one, 2-methyl -2H-isothiazol-3-one
CAS. 55965-84-9 0-0.0015 Acute Tox. 2 H330, Acute Tox. 3 H301, Acute Tox. 3 H311, Skin Corr. 1B H314, Skin Sens. 1 H317, Aquatic Acute 1 H400 M = 1, Aquatic Chronic 1 H410
CE.
INDEX. 613-167-00-5

Note: Higher value of the range excluded. The full text of risk phrases (R) and indications (H) is given in section 16 of the MSDS.

4 First aid measures

4.1 Description of first aid measures

EYES: Remove any contact lenses. Wash immediately thoroughly with water for at least 30/60 min. Consult a doctor.
SKIN: Take off all contaminated clothing. Take a shower immediately. Consult a doctor.
INGESTION: Make drink water as much as possible. Consult immediately a doctor.
INHALATION: Call a medic immediately. Portare il soggetto all'aria aperta, lontano dal luogo dell'incidente. Se la respirazione cessa, praticare la respirazione artificiale. Rescuer must take adequate precautions.

4.2 Most important symptoms and effects, both acute and delayed

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

4.3 Indication of any immediate medical attention and special treatment needed

Information not available.

5 Firefighting measures

5.1 Extinguishing media

SUITABLE EXTINGUISHING MEDIA: Extinguishing media are the conventional: carbon dioxide, foam, powder and nebulised water.
NOT SUITABLE EXTINGUISHING MEDIA: Do not use water jets. Water is not effective in extinguishing the fire, however it can be used to cool the containers, closed and exposed to the fire, to prevent bursts and explosions..

5.2 Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE: Heat causes increased pressure and danger of explosion.

5.3 Advice for firefighters

GENERAL INFORMATION: cool the containers by spraying with water to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention equipment. Collect extinguishing water to prevent the product to percolate in drains. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
EQUIPMENT: normal clothes to fight the fire, as an open circuit compressed air breathing apparatus (EN 137), flame retardant suit (EN469), flame-resistant gloves (EN 659) and Firefighter boots (HO A29 or A30).

6 Accidental release measures

6.1 Personal Protection, protective equipment and emergency procedures

Block the loss if there is no danger. Wear suitable safety equipment (including individual safety equipment listed in Section 8 of the Material Safety Data Sheet) to prevent skin, eye and personal clothing contamination. These guidelines apply to both clerks and those who work for the emergency interventions.

6.2 Environmental precautions:

Do not allow the product to percolate in drains, watercourses, or open water.

6.3 Methods and materials for containment and cleaning up:

Aspirate the spilled product into a suitable container. Assess the compatibility of the container to be used with the product, checking section 10.
Absorb remaining material with inert absorbent material.
Ensure sufficient ventilation of the affected area. Check section 7 for any incompatibilities with the material of the containers. The disposal of contaminated material must be made in accordance with section 13.

6.4 Reference to other sections:

Any information on personal protection and disposal is given in sections 8 and 13.

7 Handling and storage

7.1 Precautions for safe handling

Handle the product after consultating all other sections in this security sheet. Avoid dispersal of the product in the environment. Do not eat, drink or smoke while handling it. Remove contaminated clothing and protective equipment before entering the areas where you eat.

7.2 Conditions for safe storage, including any incompatibilities

Keep the product in clearly labeled containers. Keep containers closed, in a well-ventilated place, away from direct sunlight. Store containers away from any incompatible materials, checking section 10.

7.3 Specific end use(s):

Information not available.

8 Exposure controls / personal protection

8.1 Control parameters

Normative References:

GRB United Kingdom EH40/2005 Workplace exposure limits

Expected concentration of no effect on the environment - PNEC

Reference value in fresh water	260 mg/l
Reference value in seawater	26 mg/l
Reference value for sediment in fresh water	572 mg/kg
Reference value for sediment in seawater	57.2 mg/kg
Reference value for STP microorganisms	20000 mg/l
Reference value for the terrestrial compartment	50 mg/kg

PROPILENGLICOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		
		mg/m^3	ppm	mg/m^3	ppm	

Health - Derived No Effect Level - DNEL / DMEL

Route of exposure	Effects on consumers (mg/m^3)				Effects of workers (mg/m^3)			
	Locals acute	Systemic acute	Locals chronic	Systemic chronic	Locals acute	Systemic acute	Locals chronic	Systemic chronic
Inhalation			10	50			10	168

Legend: (C) = CEILING; INALAB = Inhalable fraction; RESPIR = Fraction breathable; TORAC = Fraction Thoracic; VND = hazard identified but no DNEL/PNEC; NEA = no anticipated exposure; NPI = no danger

8.2 Exposure controls

Observe the safety measures used in handling chemical substances.
HANDS PROTECTION: Not required.
SKIN PROTECTION: Not required.
EYES PROTECTION: Not required.
PROTECTION OF RESPIRATORY TRACTS: Not required, unless otherwise indicated in the chemical risk assessment
ENVIRONMENTAL EXPOSURE CONTROLS: Emissions from production processes, including those from ventilation should be checked for the purposes of compliance with environmental protection.

9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical State:	Liquid / Dense
Colour:	Opalescent
Odour:	Typical
Olfactory threshold:	Not available
PH:	8.0
Melting Point:	Not available
Boiling Point:	Not available
Boiling Range:	Not available
Flashpoint:	> 61 °C.
Evaporation rate:	Not available
Flammability of solids and gases:	Not available
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:	1.055 Kg/liter
Solubility in water:	Not available
Distribution coefficient/n-octano/water:	Not available
Auto-ignition temperature:	Not available
Decomposition temperature:	Not available
Viscosity:	11000
Explosive properties:	Not applicable
Oxidizing properties:	Not applicable

9.2 Other information

VOC (Directive 2004/42/EC) : 5.68 % - 60.00 g/liter.

10 Stability and reactivity

10.1 Reactivity:

There are no particular risks of reaction with other substances in normal usage conditions..

10.2 Chemical stability:

This product is considered stable in normal usage and storage conditions.

10.3 Possibility of hazardous reactions:

There are no foreseeable hazardous reactions in normal usage and storage conditions.

10.4 Conditions to avoid:

None in particular. However, observe normal safety measures used in handling chemical substances.

10.5 Incompatible materials:

Information not available.

10.6 Hazardous decomposition products:

Information not available.

11 Toxicological information

In the absence of experimental toxicological data on the product itself, any product's potential health danger of the product has been evaluated basing on the properties of the substances contained, according to the criteria laid down in the classification reference standards. Consider therefore the concentration of the individual dangerous substances mentioned in section 3, in order to assess the toxicological effects of the product's exposure. The product contains sensitizing substance(s) and therefore it can cause an allergic reaction.

11.1 Information on toxicological effects:

Mixture of: 5-chloro-2-methyl-2h-isothiazol-3-one (EC no.247-500-7); 2-methyl -2H-isothiazol-3-one (EC no.220-239-6)(3:1)

LD50 (Oral):	> 67 mg/kg Rat
LD50 (Dermal):	> 140 mg/kg Rat
LC50 (Inhalation):	> 0.17 mg/ml Rat, 4h

12 Ecological information

As there are no specific data on the preparation, adopt good working practices, avoiding release into the environment. Avoiding release into the soil or waterways. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation. Take measures to minimize the effects on the groundwater.

12.1 Toxicity:

Mixture of: 5-chloro-2-methyl-2h-isothiazol-3-one (EC no.247-500-7); 2-methyl -2H-isothiazol-3-one (EC no.220-239-6)(3:1).

EC50 - Crustaceans: > 0.12 mg/l/48h Daphnia magna, 48h

12.2 Persistence and degradability:

Information not available.

12.3 Bioaccumulative potential:

Information not available.

12.4 Mobility in soil:

Information not available.

12.5 Results of PBT and vPvB assessment:

Based on available data, the product does not contain any PBT or vPvB in percentage higher than 0.1%

12.6 Other adverse effects:
Information not available.

13 Disposal considerations

13.1 Waste treatment methods: Reuse, if possible. Product residues as such are to be considered non-hazardous waste. Disposal must be performed through an authorized waste management, in compliance with national and local laws.

13.2 CONTAMINATED PACKAGING: Contaminated packaging must be recovered or disposed in compliance with national waste management regulations.

14 Transport information

14.1 UN Number:
Not regulated.

14.2 UN proper shipping name:
Not regulated.

14.3 Transport hazard class transport:
Not regulated.

14.4 Packing group:
Not regulated.

14.5 Environmental hazards:
Not regulated.

14.6 Special precautions for user:
None in particular.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:
Information not relevant.

15 Regulatory information

15.1 Specific safety, health and environmental regulations:
Seveso category: None.
Restrictions relating to the product or contained substances pursuant to Annex XVII to Directive (EC) No. 1907/2006: None.
Substances in the Candidate List (Art. 59 REACH): None.
Substances subject to authorization (Allegato XIV REACH): None.
Substances subject to export notification Directive (EC) 649/2012: None.
Substances subject to the Rotterdam Convention: None.
Substances subject to the Stockholm Convention: None.
Healthcare checks: Information not available.
VOC (Direttiva 2004/42/CE): Pitture per effetti decorativi.
VOC given in g/liter of product ready for use: Maximum limit 200.00 (2010).
Product VOC: 60.00

15.2 Chemical safety assessment
A chemical safety assessment for the mixture and the substances it contains has not been elaborated yet.

16 Other information

Text of hazard statements (H) mentioned in sections 2-3 of the MSDS:

Acute Tox. 2	Acute toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Skin Corr. 1B	Skin corrosion, category 1B
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Risk to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Danger to the aquatic environment, chronic toxicity, category 1
H330	Fatal if inhaled.
H301	Toxic if swallowed.
H311	Toxic to skin contact.
H314	Causes severe skin burns and eye damage.
H317	It may cause an allergic reaction to skin.
H400	Very toxic to aquatic organisms.
H410	Very toxic to aquatic life with long lasting effects.
EUH210	Safety data sheet available on request.

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 1999/45/EC as amended.
2. Directive 67/548/EEC and following amendments and adjustments.
3. Directive (EC) 1907/2006 of the European Parliament (REACH).
4. Directive (EC) 1272/2008 of the European Parliament (CLP).
5. Directive (EC) 790/2009 of the European Parliament (I Atp. CLP).
6. Directive (EC) 453/2010 of the European Parliament.
7. Directive (EC) 286/2011 of the European Parliament (II Atp. CLP).
8. Directive (EC) 618/2012 of the European Parliament (III Atp. CLP).
9. Handling Chemical Safety.
10. The Merck Index. Ed. 10.
11. Niosh - Registry of Toxic Effects of Chemical Substances.
12. INRS - Fiche Toxicologique.
13. Patty - Industrial Hygiene and Toxicology.
14. N.I. Sax - Dangerous properties of Industrial Materials 7 Ed.1989.
15. 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.