

SAFETY DATA SHEET

ISO i.color (all Shades)

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Identification of the substance or mixture

Product name	: ISO i.color (all Shades)
Manufacturer	: Zotos International Inc. 100 Tokeneke Road, Darien, CT 06820 USA
Distributor	: Joico Laboratories Europe BV – Zotos Europe Grasbeemd 4 5705 DG Helmond , The Netherlands Tel. + 31 492 553 999 (Monday through Friday 9.00 – 17.00)

2. HAZARDS IDENTIFICATION

The product is classified as dangerous according to Directive 1999/45/EC and its amendments.

Classification according to Regulation (EC) 1907/2006 (REACH)

Classification	: R52/53
Environmental hazards	: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

See Section 11 for more detailed information on health effects and symptoms.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/mixture : Mixture

Ingredient name	CAS number	%	Number	Classification (according to REACH)
hexadecan-1-ol	36653-82-4	4	253-149-0	Xi; R38 [1]
Octadecan-1-ol, ethoxylated	9005-00-9	2.7	500-017-8	Xn; R22 [1] Xi; R38
glycerol 1-stearate	123-94-4	2.7	204-664-4	Not classified. [2]
ammonia	1336-21-6	1.82	215-647-6	C; R34 [1] N; R50
White mineral oil (petroleum)	8042-47-5	1.25	232-455-8	Not classified. [2]
resorcinol	108-46-3	0.776	203-585-2	Xn; R22 [1] [2] Xi; R36/38 N; R50
p-phenylenediamine	106-50-3	0.45	203-404-7	T; R23/24/25 [1] [2] Xi; R36 R43 N; R50/53
3-aminophenol	591-27-5	0.121	209-711-2	Xn; R20/22 [1] N; R51/53
2-methylresorcinol	608-25-3	0.1	210-155-8	T; R25 [1]
See Section 16 for the full text of the R-phrases declared above.				

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

[3] PBT-substance

[4] vPvB-substance

Occupational exposure limits, if available, are listed in Section 8.

4. FIRST AID MEASURES

First aid measures

- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Ingestion** : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

See Section 11 for more detailed information on health effects and symptoms.

5. FIRE-FIGHTING MEASURES

Extinguishing media

- Suitable** : Use an extinguishing agent suitable for the surrounding fire.
- Not suitable** : None known.
- Special exposure hazards** : In a fire or if heated, a pressure increase will occur and the container may burst. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. This material is harmful to aquatic organisms. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material.

Methods for cleaning up

6. ACCIDENTAL RELEASE MEASURES

- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.

7. HANDLING AND STORAGE

- Handling** : Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Storage** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.
- Packaging materials**
- Recommended** : Use original container.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limit values

Ingredient name	Occupational exposure limits
glycerol 1-stearate	ACGIH TLV (United States, 3/2012). TWA: 10 mg/m ³ 8 hour(s). Form: Total particulate mass ACGIH TLV (United States, 3/2012). TWA: 5 mg/m ³ 8 hour(s). Form: Inhalable fraction EU OEL (Europe, 12/2009). Absorbed through skin. Notes: list of indicative occupational exposure limit values TWA: 10 ppm 8 hour(s). TWA: 45 mg/m ³ 8 hour(s). ACGIH TLV (United States, 3/2012). TWA: 0.1 mg/m ³ 8 hour(s).
White mineral oil (petroleum)	
resorcinol	
p-phenylenediamine	

- Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.

Exposure controls

- Occupational exposure controls** : No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Respiratory protection** : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
- Eye protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.
- Skin protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9. PHYSICAL AND CHEMICAL PROPERTIES

General information

Appearance

- Physical state** : Liquid.
- Color** : Off-white.
- Odor** : Fragrance-like.

Important health, safety and environmental information

- pH** : 9.7
- Flash point** : Closed cup: Not applicable.
- Relative density** : 0.99

10. STABILITY AND REACTIVITY

- Chemical stability** : The product is stable.
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- Conditions to avoid** : No specific data.
- Materials to avoid** : No specific data.
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. TOXICOLOGICAL INFORMATION

Toxicokinetics

- Absorption** : Not available.
- Distribution** : Contains material which may cause damage to the following organs: lungs, upper respiratory tract, skin, eye, lens or cornea, testes.
- Metabolism** : Not available.
- Elimination** : Not available.

Potential acute health effects

- Inhalation** : Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
- Ingestion** : No known significant effects or critical hazards.
- Skin contact** : No known significant effects or critical hazards.
- Eye contact** : No known significant effects or critical hazards.

Acute toxicity

Date of issue/Date of revision : 12/10/2012.

11. TOXICOLOGICAL INFORMATION

Product/ingredient name	Result	Dose	Exposure
hexadecan-1-ol	LD50 Oral	5 g/kg	-
Octadecan-1-ol, ethoxylated	LD50 Oral	1900 mg/kg	-
ammonia	LD50 Oral	350 mg/kg	-
White mineral oil (petroleum)	LD50 Oral	>5000 mg/kg	-
resorcinol	LD50 Dermal	3360 mg/kg	-
	LD50 Oral	202 mg/kg	-
p-phenylenediamine	LC50 Inhalation Vapor	920 mg/m ³	4 hours
	LD50 Oral	80 mg/kg	-
3-aminophenol	LD50 Oral	924 mg/kg	-
2-methylresorcinol	LD50 Oral	200 mg/kg	-

Conclusion/Summary : Not available.

Potential chronic health effects**Chronic toxicity**

Conclusion/Summary : Not available.

Irritation/Corrosion

Product/ingredient name	Result	Score	Exposure	Observation
hexadecan-1-ol	Eyes - Mild irritant	-	82 milligrams	-
	Skin - Mild irritant	-	100 Percent	-
	Skin - Moderate irritant	-	24 hours 100 milligrams	-
	Skin - Mild irritant	-	72 hours 75 milligrams	-
			Intermittent	
	Skin - Severe irritant	-	0.2 Percent	-
	Skin - Mild irritant	-	48 hours 50 milligrams	-
	Skin - Severe irritant	-	24 hours 100 milligrams	-
	Skin - Mild irritant	-	24 hours 2600 milligrams	-
	Skin - Severe irritant	-	24 hours 100 milligrams	-
Octadecan-1-ol, ethoxylated	Skin - Moderate irritant	-	48 hours 20 Percent	-
ammonia	Eyes - Severe irritant	-	250 Micrograms	-
	Eyes - Severe irritant	-	0.5 minutes 1 milligrams	-
resorcinol	Eyes - Severe irritant	-	100 milligrams	-
	Skin - Moderate irritant	-	24 hours 20 milligrams	-
	Skin - Severe irritant	-	500 milligrams	-
p-phenylenediamine	Skin - Mild irritant	-	24 hours 250 milligrams	-
	Skin - Mild irritant	-	24 hours 250 milligrams	-
	Skin - Mild irritant	-	24 hours 250 milligrams	-
	Skin - Mild irritant	-	24 hours 250 milligrams	-
	Skin - Mild irritant	-	24 hours 250 milligrams	-
	Skin - Mild irritant	-	24 hours 250 milligrams	-
	Skin - Mild irritant	-	24 hours 12500 Micrograms	-
	Skin - Moderate irritant	-	24 hours 250 milligrams	-
3-aminophenol	Skin - Moderate irritant	-	1 Percent	-
	Eyes - Moderate irritant	-	24 hours 100 milligrams	-

11. TOXICOLOGICAL INFORMATION

	Skin - Mild irritant	-	24 hours 12500 Micrograms	-
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Conclusion/Summary : Not available.

Sensitizer

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Chronic effects : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Inhalation : No specific data.

Ingestion : No specific data.

Skin : No specific data.

Eyes : No specific data.

12. ECOLOGICAL INFORMATION

THE FOLLOWING DATA IN THIS SECTION IS SOURCED FROM PUBLICLY AVAILABLE DATABASES AND NOT THE REPRESENTATION OF ANY DATA COLLECTED BY ZOTOS INTERNATIONAL OR ITS AFFILIATES.

Ecotoxicity : Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Aquatic ecotoxicity

Product/ingredient name	Result	Species	Exposure
ammonia resorcinol	Acute LC50 15000 ug/L Fresh water	Fish - Gambusia affinis - Adult	96 hours
	Acute LC50 78000 ug/L Marine water	Crustaceans - Palaemonetes pugio	48 hours
	Acute LC50 >100000 ug/L Fresh water	Daphnia - Daphnia pulicaria	48 hours
	Acute LC50 40000 ug/L Fresh water	Fish - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling) - 0.2 to 0.5 g	96 hours
3-aminophenol	Acute EC50 1100 ug/L Fresh water	Daphnia - Daphnia magna - 6 to 24 hours	48 hours

Conclusion/Summary : Not available.

Other ecological information**Persistence/degradability**

Conclusion/Summary : Not available.

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
White mineral oil (petroleum)	>6	-	high
resorcinol	0.8	-	low
p-phenylenediamine	-0.3	-	low
3-aminophenol	0.21	21.88	low

Other adverse effects : No known significant effects or critical hazards.

PBT : Not applicable.

12. ECOLOGICAL INFORMATION

P: Not available. B: Not available. T: Not available.

vPvB

: Not applicable.

13. DISPOSAL CONSIDERATIONS

Methods of disposal : The generation of waste should be avoided or minimized wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Hazardous waste : The classification of the product may meet the criteria for a hazardous waste.

14. TRANSPORT INFORMATION**International transport regulations**

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
ADR/RID Class	Not regulated.	-	-	-		-
ADN/ADNR Class	Not regulated.	-	-	-		-
IMDG Class	Not regulated.	-	-	-		-
IATA Class	Not regulated.	-	-	-		-

PG* : Packing group

15. REGULATORY INFORMATION

Chemical Safety Assessment : This product contains substances for which Chemical Safety Assessments are still required.

EU regulations**Classification and labeling according to Regulation (EC) 1907/2006 (REACH)**

Classification and labeling have been determined according to EU Directives 67/548/EEC and 1999/45/EC (including amendments) and take into account the intended product use.

Risk phrases : R52/53- Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Product use : Consumer applications.

Europe inventory : Not determined.

Black List Chemicals : Not listed

Priority List Chemicals : Not listed

Integrated pollution prevention and control list (IPPC) - Air : Not listed

Integrated pollution prevention and control list (IPPC) - Water : Not listed

Other EU regulations

Additional warning phrases : Contains p-phenylenediamine. May produce an allergic reaction.

International regulations

15. REGULATORY INFORMATION

Chemical Weapons Convention : Not listed
List Schedule I Chemicals

Chemical Weapons Convention : Not listed
List Schedule II Chemicals

Chemical Weapons Convention : Not listed
List Schedule III Chemicals

16. OTHER INFORMATION

Full text of R-phrases referred to in sections 2 and 3 - Europe : R25- Toxic if swallowed.
R23/24/25- Toxic by inhalation, in contact with skin and if swallowed.
R22- Harmful if swallowed.
R20/22- Harmful by inhalation and if swallowed.
R34- Causes burns.
R36- Irritating to eyes.
R38- Irritating to skin.
R36/38- Irritating to eyes and skin.
R43- May cause sensitization by skin contact.
R50- Very toxic to aquatic organisms.
R50/53- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R51/53- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R52/53- Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Full text of classifications referred to in sections 2 and 3 - Europe : T - Toxic
C - Corrosive
Xn - Harmful
Xi - Irritant
N - Dangerous for the environment

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS] : ACUTE TOXICITY: ORAL - Category 4
SKIN CORROSION/IRRITATION - Category 2
AQUATIC TOXICITY (CHRONIC) - Category 3
Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 75.5%
Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 83.4%

Restrictions on use

None identified.

History

Date of issue/ Date of revision : 12/10/2012.
Date of previous issue : No previous validation.
Version : 0.01

☑ Indicates information that has changed from previously issued version.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

