SAFETY DATA SHEET

1. Identification

Product identifier	**Imperial Shine**	
Other means of identification		
Product Code	1944	
Recommended use	Not available.	
Recommended restrictions	None known.	
Manufacturer/Importer/Supplier/Distributor information		
Manufacturer		
Company name	Malco Products, Inc.	
Address	361 Fairview Ave Barberton, OH 44203 United States	
Telephone	Phone	800-253-2526
	Fax	330-753-2025
Website	www.malcopro.com	
E-mail	msdsinfo@malcopro.com	
Contact person	Technical Department	
Emergency phone number	Phone	1-800-424-9300
Supplier	Not available.	

2. Hazard(s) identification

Physical hazards	Not classified.	
Health hazards	Serious eye damage/eye irritation	Category 2A
Environmental hazards	Not classified.	

Label elements

Signal word	Warning
Hazard statement	Causes serious eye irritation.
Precautionary statement	
Prevention	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe mist or vapor. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Use only outdoors or in a well ventilated area. Wear protective gloves/protective clothing/eye protection/face protection. Observe good industrial hygiene practices.
Response	IF ON SKIN: Wash with plenty of soap and water. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Get medical assistance if you feel unwell. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed or concerned: Call a POISON CENTER/doctor. If skin irritation occurs, obtain medical attention. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Wash contaminated clothing before reuse. Wash hands after handling.
Storage	Store locked up. Store away from incompatible materials.
Disposal	Dispose of waste and residues in accordance with local authority requirements.
Other hazards	None known.
Supplemental information	% of the mixture consists of component(s) of unknown acute dermal toxicity. % of the mixture consists of component(s) of unknown acute inhalation toxicity.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Proprietary Ingredients		N/A	22.55
Ethylene Glycol Monobutyl Ether		111-76-2	3
Isopropanol		67-63-0	2.03
Other components below reportable levels			72.431

CLP: Regulation No. 1272/2008.
DSD: Directive 67/548/EEC.
M: M-factor
vPvB: very persistent and very bioaccumulative substance.
PBT: persistent, bioaccumulative and toxic substance.
*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret. #: This substance has been assigned Community workplace exposure limit(s).
All concentrations are in percent by weight (kg) unless ingredient is a gas. Gas concentrations are in percent by volume (l).

Composition comments The full text for all R- and H-phrases is displayed in section 16. The full text for all H-statements is displayed in section 16.

4. First-aid measures

Inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing. Move to fresh air. If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a physician or poison control center immediately. Call a POISON CENTER or doctor/physician if you feel unwell. Call a physician if symptoms develop or persist.

Skin contact Take off immediately all contaminated clothing. Remove and isolate contaminated clothing and shoes. Immediately flush skin with plenty of water. Wash off with soap and water. Call a physician or poison control center immediately. Get medical advice/attention if you feel unwell. Get medical attention if irritation develops and persists. For minor skin contact, avoid spreading material on unaffected skin. Wash contaminated clothing before reuse. Wash clothing separately before reuse.

Eye contact Immediately flush eyes with plenty of water for at least 15 minutes. Rinse with water. Flush eyes with water as a precaution. If a contact lens is present, DO NOT delay irrigation or attempt to remove the lens. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately. Get medical attention if irritation develops and persists. If eye irritation persists: Get medical advice/attention.

Ingestion IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Rinse mouth. Rinse mouth thoroughly. Never give anything by mouth to a victim who is unconscious or is having convulsions. If ingestion of a large amount does occur, call a poison control center immediately. Do not induce vomiting without advice from poison control center. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Get medical advice/attention if you feel unwell. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed Narcosis. Behavioral changes. Decrease in motor functions. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Direct contact with eyes may cause temporary irritation. Mild skin irritation. Edema. Jaundice. Prolonged exposure may cause chronic effects.

Indication of immediate medical attention and special treatment needed Provide general supportive measures and treat symptomatically. Treat symptomatically. In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

General information In case of shortness of breath, give oxygen. Immediate medical attention is required. IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Keep victim under observation. Keep victim warm.

5. Fire-fighting measures

Suitable extinguishing media Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

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

Specific hazards arising from the chemical	Fire may produce irritating, corrosive and/or toxic gases. During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Firefighters should wear full protective clothing including self contained breathing apparatus. Structural firefighters protective clothing will only provide limited protection. Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also consider initial evacuation for 800 meters (1/2 mile) in all directions. ALWAYS stay away from tanks engulfed in flame. Move containers from fire area if you can do so without risk. In the event of fire, cool tanks with water spray. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out. Some of these materials, if spilled, may evaporate leaving a flammable residue.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. Self-contained breathing apparatus and full protective clothing must be worn in case of fire. In the event of fire and/or explosion do not breathe fumes.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Consider initial downwind evacuation for at least 500 meters (1/3 mile). Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Avoid inhalation of vapors and spray mists. Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained.
Methods and materials for containment and cleaning up	Extinguish all flames in the vicinity. Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. When using do not smoke. Do not smoke. All equipment used when handling the product must be grounded. Provide adequate ventilation. Do not breathe dust/fume/gas/mist/vapors/spray. Do not breathe mist or vapor. Do not get in eyes, on skin, or on clothing. Avoid inhalation of vapors and spray mists. Avoid contact with eyes, skin, and clothing. Avoid contact with eyes. Avoid prolonged exposure. Do not get this material on clothing. When using, do not eat, drink or smoke. When using do not eat or drink. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Use only outdoors or in a well-ventilated area. Do not use in areas without adequate ventilation. Wear appropriate personal protective equipment. Wear personal protective equipment. Wash hands thoroughly after handling. Wash thoroughly after handling. Avoid release to the environment. Wash contaminated clothing before reuse. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Keep locked up. Store locked up. The pressure in sealed containers can increase under the influence of heat. Do not handle or store near an open flame, heat or other sources of ignition. Keep away from heat and sources of ignition. Keep at temperature not exceeding 49 °C. This material can accumulate static charge which may cause spark and become an ignition source. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a closed container away from incompatible materials. Store in original tightly closed container. Keep container tightly closed. Store in a well-ventilated place. Keep away from food, drink and animal feedingstuffs. Keep in an area equipped with sprinklers.

8. Exposure controls/personal protection

Occupational exposure limits

US. ACGIH Threshold Limit Values

Components	Type	Value
Ethylene Glycol Monobutyl Ether (CAS 111-76-2)	TWA	20 ppm
Isopropanol (CAS 67-63-0)	STEL	400 ppm
	TWA	200 ppm

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Components	Type	Value
Ethylene Glycol Monobutyl Ether (CAS 111-76-2)	TWA	97 mg/m3
		20 ppm
Isopropanol (CAS 67-63-0)	STEL	984 mg/m3
		400 ppm
	TWA	492 mg/m3
		200 ppm

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Components	Type	Value
Ethylene Glycol Monobutyl Ether (CAS 111-76-2)	TWA	20 ppm
Isopropanol (CAS 67-63-0)	STEL	400 ppm
	TWA	200 ppm

Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)

Components	Type	Value
Ethylene Glycol Monobutyl Ether (CAS 111-76-2)	TWA	20 ppm
Isopropanol (CAS 67-63-0)	STEL	400 ppm
	TWA	200 ppm

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

Components	Type	Value
Ethylene Glycol Monobutyl Ether (CAS 111-76-2)	TWA	20 ppm
Isopropanol (CAS 67-63-0)	STEL	400 ppm
	TWA	200 ppm

Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety)

Components	Type	Value
Ethylene Glycol Monobutyl Ether (CAS 111-76-2)	TWA	97 mg/m3
		20 ppm
Isopropanol (CAS 67-63-0)	STEL	1230 mg/m3
		500 ppm
	TWA	983 mg/m3
		400 ppm

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
Ethylene Glycol Monobutyl Ether (CAS 111-76-2)	200 mg/g	Butoxyacetic acid (BAA), with hydrolysis	Creatinine in urine	*
Isopropanol (CAS 67-63-0)	40 mg/l	Acetone	Urine	*

* - For sampling details, please see the source document.

Appropriate engineering controls Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Ensure adequate ventilation, especially in confined areas. General ventilation normally adequate. Provide eyewash station.

Individual protection measures, such as personal protective equipment

Eye/face protection Face shield is recommended. Face-shield. Wear safety glasses with side shields (or goggles). If contact is likely, safety glasses with side shields are recommended. Chemical respirator with organic vapor cartridge and full facepiece. Eye wash fountain is recommended.

Skin protection

Hand protection For prolonged or repeated skin contact use suitable protective gloves. Wear appropriate chemical resistant gloves. Wear protective gloves. Suitable gloves can be recommended by the glove supplier. Not normally needed.

Other Wear appropriate chemical resistant clothing. Wear chemical protective equipment that is specifically recommended by the manufacturer. Wear suitable protective clothing. Use of an impervious apron is recommended. It may provide little or no thermal protection.

Respiratory protection In case of insufficient ventilation, wear suitable respiratory equipment. Wear positive pressure self-contained breathing apparatus (SCBA). Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Chemical respirator with organic vapor cartridge and full facepiece.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations When using, do not eat, drink or smoke. When using do not smoke. Keep away from food and drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance Clear.

Physical state Liquid.

Form Liquid.

Color Green

Odor Lemon

Odor threshold Not available.

pH 5 - 7

Melting point/freezing point -112.84 °F (-80.47 °C) estimated

Initial boiling point and boiling range 271.16 °F (132.87 °C) estimated

Flash point > 200.0 °F (> 93.3 °C)

Evaporation rate Not available.

Flammability (solid, gas) Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower (%) 2.5 % estimated

Flammability limit - upper (%) 12 % estimated

Explosive limit - lower (%) Not available.

Explosive limit - upper (%)	Not available.
Vapor pressure	1.99 hPa estimated
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	580.28 °F (304.6 °C) estimated
Decomposition temperature	Not available.
Viscosity	100 cP
Viscosity temperature	68 °F (20 °C)
Other information	
Density	8.05 lbs/gal
Explosive properties	Not explosive.
Flammability class	Combustible IIIA estimated
Kinematic viscosity	103.5603 cSt
Kinematic viscosity temperature	68 °F (20 °C)
Oxidizing properties	Not oxidizing.
VOC	0.01 % w/w By Weight

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Risk of ignition. Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use. Hazardous polymerization does not occur.
Conditions to avoid	Heat, flames and sparks. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents. Do not mix with other chemicals.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Harmful if inhaled. May cause damage to organs by inhalation. May cause damage to organs through prolonged or repeated exposure by inhalation. Prolonged inhalation may be harmful.
Skin contact	Harmful in contact with skin. Causes mild skin irritation. Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis. 2-Butoxy ethanol may be absorbed through the skin in toxic amounts if contact is repeated and prolonged. These effects have not been observed in humans.
Eye contact	Causes serious eye irritation. Direct contact with eyes may cause temporary irritation.
Ingestion	May cause discomfort if swallowed. Expected to be a low ingestion hazard. However, ingestion is not likely to be a primary route of occupational exposure.
Symptoms related to the physical, chemical and toxicological characteristics	Narcosis. Behavioral changes. Decrease in motor functions. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Direct contact with eyes may cause temporary irritation. Mild skin irritation. Exposure may cause temporary irritation, redness, or discomfort. Edema. Jaundice.

Information on toxicological effects

Acute toxicity	Harmful if inhaled. Harmful in contact with skin.

Components	Species	Test Results
Ethylene Glycol Monobutyl Ether (CAS 111-76-2)		
Acute		
Dermal		
LD50	Rabbit	400 mg/kg
Oral		
LD50	Rat	560 mg/kg
Isopropanol (CAS 67-63-0)		
Acute		
Oral		
LD50	Rat	4.7 g/kg

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation Prolonged skin contact may cause temporary irritation. Causes mild skin irritation. Due to partial or complete lack of data the classification is not possible.

Serious eye damage/eye irritation Causes serious eye irritation. Direct contact with eyes may cause temporary irritation. Due to partial or complete lack of data the classification is not possible. None known.

Respiratory or skin sensitization

Canada - Alberta OELs: Irritant

Ethylene Glycol Monobutyl Ether (CAS 111-76-2)	Irritant

Respiratory sensitization Not a respiratory sensitizer. Due to partial or complete lack of data the classification is not possible.

Skin sensitization Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis. None known. This product is not expected to cause skin sensitization. Due to partial or complete lack of data the classification is not possible.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic. Due to partial or complete lack of data the classification is not possible.

Carcinogenicity Hazardous by WHMIS criteria. Cancer hazard. Suspected of causing cancer. This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA. Not classifiable as to carcinogenicity to humans. Due to partial or complete lack of data the classification is not possible.

ACGIH Carcinogens

Ethylene Glycol Monobutyl Ether (CAS 111-76-2)	A3 Confirmed animal carcinogen with unknown relevance to humans.
Isopropanol (CAS 67-63-0)	A4 Not classifiable as a human carcinogen.

Canada - Manitoba OELs: carcinogenicity

Ethylene Glycol Monobutyl Ether (CAS 111-76-2)	Confirmed animal carcinogen with unknown relevance to humans.
Isopropanol (CAS 67-63-0)	Not classifiable as a human carcinogen.

IARC Monographs. Overall Evaluation of Carcinogenicity

Ethylene Glycol Monobutyl Ether (CAS 111-76-2)	3 Not classifiable as to carcinogenicity to humans.

Reproductive toxicity Suspected of damaging fertility or the unborn child. Not classified. This product is not expected to cause reproductive or developmental effects. Due to partial or complete lack of data the classification is not possible.

Specific target organ toxicity - single exposure May cause damage to organs. May cause damage to organs (). Due to partial or complete lack of data the classification is not possible. Not classified.

Specific target organ toxicity - repeated exposure Not classified. May cause damage to organs () through prolonged or repeated exposure. Due to partial or complete lack of data the classification is not possible.

Aspiration hazard Not an aspiration hazard. Due to partial or complete lack of data the classification is not possible.

Chronic effects Hazardous by OSHA criteria. Hazardous by WHMIS criteria. May cause damage to organs through prolonged or repeated exposure. May be harmful if absorbed through skin. Prolonged inhalation may be harmful.

2-Butoxy ethanol may be absorbed through the skin in toxic amounts if contact is repeated and prolonged. These effects have not been observed in humans.

Repeated absorption may cause disorder of central nervous system, liver, kidneys and blood. Prolonged exposure may cause chronic effects.

Further information Symptoms may be delayed.

12. Ecological information

Ecotoxicity Contains a substance which causes risk of hazardous effects to the environment. Not expected to be harmful to aquatic organisms. The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components		Species	Test Results
Ethylene Glycol Monobutyl Ether (CAS 111-76-2)			
Aquatic			
Fish	LC50	Inland silverside (Menidia beryllina)	1250 mg/l, 96 hours
Isopropanol (CAS 67-63-0)			
Aquatic			
Fish	LC50	Bluegill (Lepomis macrochirus)	> 1400 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

Ethylene Glycol Monobutyl Ether	0.83
Isopropanol	0.05

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions Contract with a disposal operator licensed by the Law on Disposal and Cleaning. Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Dispose of contents/container in accordance with local/regional/national/international regulations. Dispose in accordance with all applicable regulations. Dispose of contents/container (in accordance with related regulations). When your own wastewater treatment plant is not available, collect entire waste and then charge to a licensed industrial waste management professional with manifests for industrial waste.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

TDG

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not established.

15. Regulatory information

Canadian regulations This product has been classified in accordance with the hazard criteria of the CPR and the SDS contains all the information required by the CPR.

Controlled Drugs and Substances Act

Not regulated.

Export Control List (CEPA 1999, Schedule 3)

Not listed.

Greenhouse Gases

Not listed.

Precursor Control Regulations

Not regulated.

International regulations

The product is classified and labelled in accordance with EC directives or respective national laws. The product does not need to be labelled in accordance with EC directives or respective national laws. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006, as amended. Regulation (EU) No 453/2010 amending Regulation (EC) No 1907/2006 on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH). Regulation (EC) No 1272/2008 on classification, labeling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Stockholm Convention

Not applicable.

Rotterdam Convention

Not applicable.

Kyoto protocol

Not applicable.

Montreal Protocol

Not applicable.

Basel Convention

Not applicable.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
Taiwan	Taiwan Toxic Chemical Substances (TCS)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information

Issue date 05-18-2018

Revision date 05-18-2018

Version # 02

Further information HMIS® is a registered trade and service mark of the NPCA.

References

ACGIH
ACGIH Documentation of the Threshold Limit Values and Biological Exposure Indices
EPA: AQUIRE database
HSDB® - Hazardous Substances Data Bank
IARC Monographs. Overall Evaluation of Carcinogenicity
National Toxicology Program (NTP) Report on Carcinogens
NLM: Hazardous Substances Data Base
US. IARC Monographs on Occupational Exposures to Chemical Agents
Korea. Accidental Release Prevention Substances (Presidential Decree of Toxic Chemical Control Law, Executive Order No. 19203)
Korea. Dangerous Substances Threshold Quantity (Presidential Decree of Dangerous Substances Safety Management Act No. 18406, Schedule 1)
Korea. Harmful Substances Prohibited from Manufacturing (Presidential Decree on the Industrial Safety and Health Act (No. 13053), Article 29)
Korea. Harmful Substances Requiring Permission for Manufacture or Use (Presidential Decree on the Industrial Safety and Health Act (No. 13053), Article 30)
Korea. Non-Toxic Chemicals List (National Institute of Environment Research (NIER) Public Notice No. 1997-10, as amended)
Korea. Observational Chemicals (Ministerial Decree of TCCL Article 6)
Korea. OELs. Regulation for Permitted Concentration of Hazardous Substances (Ministry of Labor (MOL) Public Notice No. 1986-45, as amended)
Korea. Prohibited Chemical Substances (TCCL Article 11)
Korea. Regulated volatile organic compounds (VOCs) (MOE Notice No. 2001-36, March 8, 2001, as amended)
Korea. Restricted Chemical Substances (TCCL Article 11)
Korea. Toxic Chemical Control Law (TCCL), Existing Chemicals Inventory (KECI)
Korea. Toxic Chemical Control Law (TCCL), pre-1997 List
Korea. Toxic Chemicals (TCCL Article 10)
Korea. Toxic Release Inventory (TRI) Chemicals (TCCL Article 14)
Taiwan. Dangerous Materials (Rules on Hazard Communication of Dangerous Materials and Toxic Materials)
Taiwan. Industrial Precursor Chemicals (Categories and Regulations Governing Inspection and Declaration of Industrial Precursor Chemicals, MOEA Decree No. 87, as amended)
Taiwan. OELs. (Standards on Workplace Atmosphere of Dangerous and Hazardous Materials)
Taiwan. Toxic Chemical Substances (TCS) (List of Toxic Chemical Substances announced by the Environmental Protection Administration)
Taiwan. Toxic Materials (Rules on Hazard Communication of Dangerous Materials and Toxic Materials)
Japan Society for Occupational Health, Recommendation of Occupational Exposure Limits
Japan Chemical Industry Association (JCIA) GHS Guideline, June 2012
JIS Z 7252:2014 Classification of chemicals based on “Globally Harmonized System of Classification and Labelling of Chemicals (GHS)”
JIS Z 7253:2012 Hazard communication of chemicals based on GHS – Labelling and Safety Data Sheet (SDS)
GOST 30333-2007 Chemical production safety passport. General requirements.
GOST 31340-2013 Labeling of chemicals. General requirements.
GOST 32419-2013 Classification of chemical products. General requirements.
GOST 32424-2013 Classification of chemicals for environmental hazards. General principles.
GOST 12.1.007-76 Occupational safety standard system. Noxious substances. Classification and general safety requirements.
GOST 12.1.044-89. Occupational safety standards system. Fire and explosion hazard of substances and materials. Nomenclature of substances and materials. Nomenclature of indices and methods of their determination.
GOST 19433-88. Dangerous goods. Classification and marking.
GOST 12.1.004-91. Occupational safety standards system. Fire safety. General requirements.
GOST 32425-2013 Mixtures classification of hazard for environmental.
GOST 32423-2013 Mixtures classification of hazard for health.

Disclaimer

This safety data sheet was prepared in accordance with JIS Z 7253:2012. Additional information is given in the Material Safety Data Sheet. Malco Products, Inc. cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user’s responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. The information in the sheet was written based on the best knowledge and experience currently available.

Revision information	Product and Company Identification: Product and Company Identification Composition / Information on Ingredients: Ingredients GHS: Classification