



SAFETY DATA SHEET

This SDS complies with REACH 1907/2006 and 2001/58/EC, GHS, OSHA 29CFR 1910.1200

Section 1: Chemical Product and Company Identification

MANUFACTURER'S NAME
Advantage Coatings Technology
1533 Arthur Avenue
Unit B
Louisville, Colorado 80027-3054

EMERGENCY TELEPHONE
Chemtrec U.S.-Canada: 800-424-9300
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Safety Data Sheet Competent Person:
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DATE PREPARED: April 18, 2014

REVISION DATE: April 25, 2014

PRODUCT NAME: **DEFENSE**

FORMULA: Preparation/Mixture
PRODUCT USE: Hardwood Floor Finish

Section 2: Hazards Identification

Regulation (EC) No 1272/2008

GHS Hazard Class

This product does not meet the physical, health, or environmental classification criteria of GHS (Globally Harmonized System)

Signal word:

Hazard Statement:

Precautionary Statements:	Prevention	No Precautionary statement
	Response	No Precautionary statement
	Storage	No Precautionary statement
	Disposal	No Precautionary statement

HAZARD CLASSIFICATION:

Not classified as hazardous based on IATA, IMDG, and DOT.

FIRE AND EXPLOSION:

Not considered flammable or combustible, but this product will burn if involved in a fire. Product emits toxic fumes when burned.

POTENTIAL HEALTH EFFECTS:

<1 % of mixture consists of ingredients of unknown acute toxicity

INGESTION:

May be harmful if swallowed.

INHALATION:

May be harmful if inhaled. Causes respiratory tract irritation.

SKIN CONTACT:

May cause skin irritation.

EYE CONTACT:

Eye irritation may result.

OTHER:

None

CHRONIC EFFECTS OF OVEREXPOSURE:

None

APPEARANCE:

Milky White liquid

NFPA Rating:

Component	Health (Blue)	Flammability (Red)	Reactivity (Yellow)	Special (White)
Defense	1	1	0	--



Section 3: Composition, Information on Ingredients

PRODUCT COMPOSITION	APPRX %	ACGIH TLV	OSHA PEL	NIOSH REL	CAS NO.	EINECS/ELINCS	DANGER SYMBOL	RISK PHRASE	DSL CANADA
N-Methyl-2 pyrrolidone	2-10	-----	-----	-----	872-50-4	212-828-1	Xi	R61, 36/37//38	Y
P-series glycol ether	<5	100 ppm 150 ppm STEL	100 ppm 150 ppm STEL	-----	34590-94-8	Y/N	-----	-----	Y

Trade Secret (TS) Some items on this MSDS may be designated as trade secrets. Bonafide requests for disclosure of trade secret information to medical personnel must be made in accordance with the provisions contained in 29 CFR 1910.1200 I 1-13. The full text for all R-Phrases is shown in Section 16.

Section 4: First Aid Measures

INHALATION: Remove to fresh air. If not breathing, provide CPR (cardio pulmonary resuscitation). Get immediate medical attention.

SKIN CONTACT: Immediately flush skin with plenty of soap and water for at least 15 minutes. Remove contaminated clothing.

EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes. Get immediate medical attention.

INGESTION: If swallowed do not induce vomiting, give large quantities of water to drink. Never give anything to an unconscious person. Get immediate medical attention.

Section 5: Fire-fighting Measures

FLASH POINT: None

FLAMMABLE LIMITS IN AIR (% by vol): Not measured

EXTINGUISHING MEDIA: Foam, Dry Chemical Powder, or Carbon Dioxide

SPECIAL FIREFIGHTING PROCEDURES: None

UNUSUAL FIRE AND EXPLOSION HAZARDS: Emits toxic fumes under fire conditions.

Section 6: Accidental Release Measures

ACTION TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

- Wear proper protective equipment as specified in Section 8: Exposure Controls/Personal Protection
- Warn other workers of spill and contain spill.
- Recover spill by using absorbent and sweeping up waste material.
- In case of large spills, dike the spill, if possible. Call emergency services.
- Place material into a chemical waste container.
- Eliminate all sources of ignition and ventilate area.
- Prevent spills or contaminated rinse water from entering sewers or watercourses.

DISPOSAL METHOD: disposal should be made in accordance with federal, state, and local regulations. Incineration is recommended.

Section 7: Handling and Storage

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

- Store upright in a cool place below 15-25 °C (60-80 °F)
- Keep container closed when not in use.
- Keep away from heat and flame.
- Wear proper protective equipment and avoid contact with skin, eyes, or clothing.
- Wash hands after handling this material.
- Follow all applicable local regulations for handling and storage.
- Utilize chemical segregation.

INFORMATION ON EMPTIED CONTAINER

Dispose of this container according to local, state, and federal laws in your country.



Do not reuse this container. This container may be hazardous when emptied.

SPECIFIC USES:

This product is a hardwood floor finish.

Section 8: Exposure Controls/Personal Protection

VENTILATION:

Always provide good general, mechanical room ventilation where this chemical/material is used.

SPECIAL VENTILATION CONTROLS:

Use this material inside totally enclosed equipment, or use it with local exhaust ventilation at points where vapors can be released into the workspace air.

RESPIRATORY PROTECTION:

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or the CEN European Standards (EU). Use a NIOSH/MSHA or European Standard (EN) approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

PROTECTIVE GLOVES:

Neoprene, butyl, or nitrile rubber gloves are recommended.

EYE PROTECTION:

Recommend eye protection using safety glasses or goggles.

SKIN PROTECTION:

Suitable protective clothing to prevent skin contact

WORK/HYGIENE PRACTICES:

Avoid breathing vapor. Avoid contact with eyes. Wash hands after handling.

EXPOSURE LIMITS

Reference Section 2

OTHER EQUIPMENT:

Make safety shower, eyewash stations, and hand washing equipment available in the work area.

Section 9: Physical and Chemical Properties

APPEARANCE - COLOR:

Milky white

PHYSICAL STATE:

Liquid

ODOR:

Sweet acrylic odor

PRODUCT CRITERIA

	PRODUCT CRITERIA
ODOR THRESHOLD	Not applicable for product
PH	8.3
FLASH POINT:	Not applicable for product
LOWER EXPLOSIVE LIMIT; UPPER EXPLOSIVE LIMIT	Not applicable for product
FLAMMABILITY (Solid, gas)	Not flammable
EXPLOSIVE PROPERTIES	Not applicable for product
OXIDIZING PROPERTIES	May occur
SPECIFIC GRAVITY (@25 °C):	1.03
EVAPORATION RATE:	Less than n-butyl acetate
% VOLATILE by Weight	68
PARTITION COEFFICIENT	Not applicable for product
AUTO IGNITION TEMPERATURE	Not applicable for product
DECOMPOSITION TEMPERATURE	Not applicable for product
BOILING POINT:	Not applicable for product
MELTING POINT:	>212 °F, °100 C
VAPOR PRESSURE	Not applicable for product
VAPOR DENSITY (AIR = 1)	Heavier than air
SOLUBILITY IN WATER:	Miscible
WATER SOLUBILITY IN THE SOLVENT	Miscible
FREEZING POINT:	Not applicable for product
VISCOSITY	20-22 seconds Ford #4 cup
VOC CONTENT	Less than 250 grams/Liter

Section 10: Stability and Reactivity

STABILITY:

Stable under normal conditions.



CONDITIONS TO AVOID:
INCOMPATIBILITY (MATERIALS TO AVOID):

HAZARDOUS DECOMPOSITION PRODUCTS:

HAZARDOUS POLYMERIZATION:

Avoid heat. Closed containers may explode due to build up of pressure. Strong acids and bases. High temperatures or freezing. At 212 °F phase separation and possible coagulation.

Heating to decomposition may generate Carbon monoxide and carbon dioxide, oxides of nitrogen.

Will not occur

Section 11: Toxicological Information

There is no toxicological information available for the product mixture.

GHS Required Criteria	Toxicity Criteria	Toxicity Information	Comments	Chemical Constituent
Acute Toxicity	LD50 Dermal Rabbit	9510 mg/kg		P series glycol ethers
	LC50 Inhalation Rat	552 ppm	7 hours	P series glycol ethers
	LD50 Oral Rat	3914 mg/kg		NMP
	LD50 Dermal Rabbit	8000 mg/kg		NMP
	LDLO Inhalation Rat	>5100 ppm	4 hours	NMP
Skin Corrosion/Irritation		No information is available.		
Serious Eye Damage / Eye Irritation		No information is available.		
Respiratory or Skin Sensitization		No information is available.		
Germ Cell Mutagenicity		No information is available.		
Carcinogenicity		Not listed	NTP	
		Not listed	IARC	
		Not listed	OSHA	
Reproductive Toxicity	Damage to fetus possible			NMP
STOST -- Single Exposure	Inhalation - May cause respiratory irritation.			NMP
	Inhalation:	May cause respiratory irritation		P series glycol ethers
STOST – Repeated Exposure		No information is available.		
Aspiration Hazard		No information is available.		
Ames test		No information is available.		

STOST = Specific Target Organ Systemic Toxicity

OTHER INFORMATION:

Only selected Registry of Toxic Effects of Chemical Substances (RTECS) data is presented here. See actual entry in RTECS for complete information.

Section 12: Ecological Information

BIODEGRADATION:	No information is available.	
BIOACCUMULATION:	No information is available.	
ECO TOXICITY:	LC50 - Leuciscus idus (Golden orfe) - > 500 mg/l - 96 h	NMP
	EC50 - Daphnia magna (Water flea) - > 1,000 mg/l - 24 h	NMP
	LC50 - other fish - 4,000 mg/l - 96 h	NMP
	LC50 / 96 HOURS Pimephales promelas (fathead minnow) 10,000 mg/l	P series glycol ethers
	LC50 / 48 HOURS Daphnia magna. 1,919 mg/l (nominal)	P series glycol ethers
	EC50 / 72 HOURS Selenastrum capricornutum (green algae) 1,000 mg/l	P series glycol ethers
	EC10 / Pseudomonas putida cell growth 4,168 mg/l (nominal)	P series glycol ethers
MOBILITY:	No information is available.	

Note: Not all of the ingredients have been tested for Ecotoxicity.

Section 13: Disposal Considerations

WASTE FROM RESIDUES / UNUSED PRODUCTS:

Follow the waste disposal requirements of your country, state, or local authorities.

CONTAMINATED PACKAGING:

Recommend contaminated packaging material should be disposed of as stated above for residues and unused product.



RINSATE: Do not dispose of rinse water containing product in a sanitary sewer system or storm water drainage system.

Section 14: Transport Information

DOT TRANSPORT:		Not Regulated
ADR = International Carriage of Dangerous Goods by Road		Not Regulated
RAIL TRANSPORT:		Not Regulated
SEA TRANSPORT:	IMDG	Not Regulated
AIR TRANSPORT:	IATA/ICAO	Not Regulated

Section 15: Regulatory Information

Directive 1999/45/EC

LABEL FOR SUPPLY:



IRRITANT

RISK PHRASES:

R-Phrase:	R36	Irritating to Eyes
	R38	Irritating to Skin
S-Phrase:	S24	Avoid contact with Skin
	S25	Avoid contact with Eyes

TOXIC SUBSTANCES CONTROL ACT (TSCA) STATUS:

This product is in compliance with rules, regulations, and orders of TSCA. All components are listed on the TSCA Inventory.

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (SARA) TITLE III SECTION 313 SUPPLIER NOTIFICATION:

This regulation requires submission of annual reports of toxic chemical(s) that appear in section 313 of the Emergency Planning and Community Right To Know Act of 1986 and 40 CFR 372. This information must be included in all MSDS's that are copied and distributed for the material.

The Section 313 toxic chemicals contained in this product are: None

CALIFORNIA PROPOSITION 65:

This regulation requires a warning for California Proposition 65 chemical(s) under the statute. The California proposition 65 chemical(s) contained in this product are: None

STATE RIGHT-TO-KNOW TOXIC SUBSTANCE OR HAZARDOUS SUBSTANCE LIST:

Florida Toxic Substance(s):	Not listed
Massachusetts's hazardous substance(s):	P series glycol ethers
Pennsylvania hazardous substance code(s):	P series glycol ethers
New Jersey	P series glycol ethers
Illinois	Not listed
Michigan	Not listed

CANADA:

This MSDS/SDS will be non-compliant 3 years after the issue date. This MSDS contains all of the information required by the Controlled Products Regulations (CPR).

WHMIS-INFORMATION:



This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR), SOR/88-66, Current to February 20, 2012. The classes of controlled products listed in the CPR, Section 32, Part IV, have been reviewed and based on Professional Judgment this product has been determined to not be WHMIS controlled.

EUROPEAN UNION:

This product has been reviewed for compliance with the following European Community Directives: REACH 1907/2006; Directive 1999/45/EC, Regulation (EC) No 1272/2008 on classification, labeling and packaging (CLP) of substances and mixtures.

WGK: 0 (German Federal Water Management Act) (Water Hazard Class)

Section 16: Other Information

European Community Hazards Identification:

R: R36/37/38 Irritating to eyes, respiratory system and skin.
R: 61 May cause harm to the unborn child.
S: 45 In case of accident or if you feel unwell, seek medical advice immediately
Danger Symbol(s): T Toxic

Revision Comments: Initial version April 18, 2014
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Information Sources: RTECS, REACH, OSHA 29CFR 1910.1200

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