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843131	

29 CFR 1910.1200 (OSHA HazCom 2012)

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

:

Product identifier

Trade name

Advantage[™] PLUS polymer [™] Trademark, Ashland or its subsidiaries, registered in various countries

Relevant identified uses of the substance or mixture and uses advised against Recommended use : Personal care

Details of the supplier of the safety data sheet Ashland	Emergency telephone number 1-800-ASHLAND (1-800-274-5263)
P.O. Box 2219 Columbus, OH 43216 United States of America (USA)	Regulatory Information Number 1-800-325-3751
+1-614-790-3333	Product Information +1-614-790-3333
EHSProductSafety@ashland.com	

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification Flammable liquids	: Category 2
Eye irritation	: Category 2A
Specific target organ systemic toxicity - single exposure	: Category 3 (Central nervous system)
GHS label elements Hazard pictograms	
Signal Word	: Danger

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Hazard Statements	 Highly flammable liquid and vapor. Causes serious eye irritation. May cause drowsiness or dizziness.
Precautionary Statements	 Prevention: Keep away from heat/sparks/open flames/hot surfaces. No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ ventilating/ lighting/ equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray. Wash skin thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves/ eye protection/ face protection. Response: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor 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 eye irritation persists: Get medical advice/ attention. In case of fire: Use dry sand, dry chemical or alcohol-resistant form to extinguish. Store in a well-ventilated place. Keep container tightly closed. Store in a well-ventilated place. Keep cool. Store in a superventilated place. Keep cool. Store in a well-ventilated place. Keep cool. Store in a superventilated place. Keep cool.
Other hazards None known.	

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Chemical nature : Defatter

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Hazardous components

Chemical name	CAS-No.	Classification	Concentration (%)
2-Butenedioic acid (2Z)-, 1-butyl ester, polymer with ethenyl acetate and rel-(1R,2R,4S)-1,7,7- trimethylbicyclo[2.2.1]hept-2-yl 2- pr	131649-91-7	Eye Irrit. 2A; H319	52.00
ETHANOL	64-17-5	Flam. Liq. 2; H225 Eye Irrit. 2A; H319 STOT SE 3; H336	52.00

SECTION 4. FIRST AID MEASURES

General advice	 Move out of dangerous area. Call a POISON CENTRE or doctor/physician if exposed or you feel unwell. Show this safety data sheet to the doctor in attendance. Do not leave the victim unattended.)r
If inhaled	 Move to fresh air. If unconscious, place in recovery position and seek medic advice. Consult a physician after significant exposure. 	al
In case of skin contact	 If on skin, rinse well with water. First aid is not normally required. However, it is recommended that exposed areas be cleaned by washing with soap and water. If on clothes, remove clothes. 	3
In case of eye contact	 Immediately flush eye(s) with plenty of water. Remove contact lenses. Protect unharmed eye. 	
If swallowed	 Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. 	
Most important symptoms and effects, both acute and delayed	Inhalation of high concentrations of this material, as could occur in enclosed spaces or during deliberate abuse, may associated with cardiac arrhythmias. Sympathomimetic d may initiate cardiac arrhythmias in persons exposed to the	y be drugs

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material.

material.
Signs and symptoms of exposure to this material through
breathing, swallowing, and/or passage of the material through
the skin may include:
stomach or intestinal upset (nausea, vomiting, diarrhea)
irritation (nose, throat, airways)
Cough
confusion
irregular heartbeat
respiratory failure
Causes serious eye irritation.
May cause drowsiness or dizziness.

Notes to physician : No hazards which require special first aid measures.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Water spray Foam Alcohol-resistant foam Carbon dioxide (CO2) Dry chemical
Unsuitable extinguishing media	:	High volume water jet
Specific hazards during firefighting	:	Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. Do not allow run-off from fire fighting to enter drains or water courses.
Hazardous combustion products	:	carbon dioxide and carbon monoxide formaldehyde-like Hydrocarbons
Specific extinguishing methods	:	
		Product is compatible with standard fire-fighting agents.

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Further information	:	Do not use a solid water stream as it may scatter and spread fire. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Use a water spray to cool fully closed containers.
Special protective equipment for firefighters	:	In the event of fire, wear self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Evacuate personnel to safe areas. Remove all sources of ignition. Use personal protective equipment. Ensure adequate ventilation. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.
Environmental precautions	:	Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.
Methods and materials for containment and cleaning up	:	Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).
Other information	:	Comply with all applicable federal, state, and local regulations. Suppress (knock down) gases/vapours/mists with a water spray jet.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling	 Open drum carefully as content may be under pressure. Avoid formation of aerosol. Provide sufficient air exchange and/or exhaust in work rooms. Do not breathe vapours/dust. Do not smoke. Container hazardous when empty. Take precautionary measures against static discharges.
	Avoid exposure - obtain special instructions before use.

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	Avoid contact with skin and eyes. Smoking, eating and drinking should be prohibited in the application area. For personal protection see section 8. Dispose of rinse water in accordance with local and national regulations.
Conditions for safe storage	 Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. No smoking.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of	Control parameters /	Basis
		exposure)	Permissible	
			concentration	
ETHANOL	64-17-5	STEL	1,000 ppm	ACGIH
		TWA	1,000 ppm	NIOSH REL
			1,900 mg/m3	
		TWA	1,000 ppm	OSHA Z-1
			1,900 mg/m3	
		TWA	1,000 ppm	OSHA P0
			1,900 mg/m3	
		PEL	1,000 ppm	CAL PEL
			1,900 mg/m3	

Hazardous components without workplace control parameters

Components	CAS-No.
2-Butenedioic acid (2Z)-, 1-	131649-91-7
butyl ester, polymer with	
ethenyl acetate and rel-	
(1R,2R,4S)-1,7,7-	
trimethylbicyclo[2.2.1]hept-2-yl	
2-pr	

Engineering measures

: Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

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Personal protective equipment

Respiratory protection :	A NIOSH-approved air-purifying respirator with an appropriate cartridge and/or filter may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits (if applicable) or if overexposure has otherwise been determined. Protection provided by air- purifying respirators is limited. Use a positive pressure, air- supplied respirator if there is any potential for uncontrolled release, exposure levels are not known or any other circumstances where an air-purifying respirator may not provide adequate protection.
Hand protection Remarks :	The suitability for a specific workplace should be discussed with the producers of the protective gloves.
Eye protection :	Wear chemical splash goggles when there is the potential for exposure of the eyes to liquid, vapor or mist.
Skin and body protection :	Wear resistant gloves (consult your safety equipment supplier). Wear as appropriate: Impervious clothing Safety shoes Flame-resistant clothing Choose body protection according to the amount and concentration of the dangerous substance at the work place. Discard gloves that show tears, pinholes, or signs of wear.
Hygiene measures :	Wash hands before breaks and at the end of workday. When using do not eat or drink. When using do not smoke.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	:	liquid
Colour	:	light yellow
Odour	:	alcohol-like
Odour Threshold	:	No data available

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рН	: No data available	
Melting point/freezing point	: No data available	
Boiling point/boiling range	: 173.3 °F / 78.5 °C Value for Component	
Flash point	: 7.7 °CValue for Component	
Evaporation rate	: No data available	
Flammability (solid, gas)	: No data available	
Upper explosion limit	: No data available	
Lower explosion limit	: No data available	
Vapour pressure	: 53.3 hPa (19 °C) Value for Component	
Relative vapour density	: No data available	
Relative density	: No data available	
Density	: 1 g/cm3 (20 °C)	
Solubility(ies) Water solubility	: insoluble	
Solubility in other solvents	: No data available	
Partition coefficient: n- octanol/water	: No data available	
Thermal decomposition	: No data available	
Viscosity Viscosity, dynamic	: No data available	
Viscosity, kinematic	: No data available	
Oxidizing properties	: No data available	

SECTION 10. STABILITY AND REACTIVITY

Reactivity

: No decomposition if stored and applied as directed.

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Chemical stability	: Stable under recommended storage conditions.
Possibility of hazardous reactions	: Vapours may form explosive mixture with air.
Conditions to avoid	: excessive heat
	Heat, flames and sparks.
Incompatible materials	: Acids Alkali metals Ammonia Bases halogens inorganic materials Oxidizing agents sodium
Hazardous decomposition products	carbon dioxide and carbon monoxide formaldehyde-like Hydrocarbons

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of	:	Inhalation
exposure		Skin contact
		Eye Contact
		Ingestion

Acute toxicity Not classified based on available information.

<u>Components:</u> 2-Butenedioic acid (2Z)-, 1-butyl ester, polymer with ethenyl acetate and rel-(1R,2R,4S)-1,7,7- trimethylbicyclo[2.2.1]hept-2-yl 2-pr:				
Acute oral toxicity	: LD50 (Rat): > 5,000 mg/kg			
Acute dermal toxicity	: LD50 (Rabbit): > 2,000 mg/kg			
ETHANOL: Acute oral toxicity	: LD50 (Rat): 7,060 mg/kg			
Acute inhalation toxicity	: LC50 (Rat): 117 - 125 mg/l			

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Exposure time: 4 h Test atmosphere: vapour

Acute dermal toxicity

: LDLo (Rabbit): 20 g/kg

Skin corrosion/irritation

Not classified based on available information. **Product:** Result: Repeated exposure may cause skin dryness or cracking.

Remarks: May cause skin irritation in susceptible persons.

Components:

2-Butenedioic acid (2Z)-, 1-butyl ester, polymer with ethenyl acetate and rel-(1R,2R,4S)-1,7,7trimethylbicyclo[2.2.1]hept-2-yl 2-pr: Result: No skin irritation

ETHANOL: Result: Slight, transient irritation

Serious eye damage/eye irritation

Causes serious eye irritation.

Product:

Remarks: Vapours may cause irritation to the eyes, respiratory system and the skin., Causes serious eye irritation.

Components:

2-Butenedioic acid (2Z)-, 1-butyl ester, polymer with ethenyl acetate and rel-(1R,2R,4S)-1,7,7trimethylbicyclo[2.2.1]hept-2-yl 2-pr: Result: Severely irritating to eyes

ETHANOL: Result: Irritating to eyes.

Respiratory or skin sensitisation

Skin sensitisation: Not classified based on available information.
Respiratory sensitisation: Not classified based on available information.
<u>Components:</u>
2-Butenedioic acid (2Z)-, 1-butyl ester, polymer with ethenyl acetate and rel-(1R,2R,4S)-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl 2-pr:
Species: Guinea pig
Assessment: Did not cause sensitisation on laboratory animals.

Germ cell mutagenicity Not classified based on available information. **Carcinogenicity**

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Not classified based on available information. **Reproductive toxicity** Not classified based on available information. **STOT - single exposure** May cause drowsiness or dizziness. <u>Components:</u> ETHANOL: Assessment: May cause drowsiness or dizziness.

STOT - repeated exposure

Not classified based on available information. **Aspiration toxicity** Not classified based on available information. **Further information**

Product:

Remarks: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting., Concentrations substantially above the TLV value may cause narcotic effects., Solvents may degrease the skin.

Carcinogenicity: IARC	Group 1: Carcinogenic to humans		
	ETHANOL	64-17-5	
OSHA	No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.		
NTP	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinoge by NTP.		

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity <u>Product:</u> Ecotoxicology Assessment Acute aquatic toxicity	: Not classified based on available information.
Chronic aquatic toxicity	: Not classified based on available information.
<u>Components:</u> ETHANOL: Toxicity to fish	: LC50 (Oncorhynchus mykiss (rainbow trout)): 12,000 - 16,000 mg/l Exposure time: 96 h

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Toxicity to daphnia and other aquatic invertebrates	: EC50 (Daphnia magna (Water flea)): > 10,000 mg/l Exposure time: 48 h Test Type: static test
	Exposure time: 48 h

Persistence and degradability No data available Bioaccumulative potential ETHANOL: Partition coefficient: n- octanol/water	:	log Pow: -0.31
No data available Mobility in soil No data available Other adverse effects No data available		
Product: Additional ecological information	:	No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods	
General advice	 Do not dispose of waste into sewer. Do not contaminate ponds, waterways or ditches with chemical or used container. Send to a licensed waste management company.
	Dispose of in accordance with all applicable local, state and federal regulations.
Contaminated packaging	 Empty remaining contents. Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers. Do not burn, or use a cutting torch on, the empty drum.

SECTION 14. TRANSPORT INFORMATION

International transport regulations

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REGULATION

ID NUMBER	PROPER SHIPPING NAME	*HAZARD	SUBSIDIARY	PACKING	MARINE
		CLASS	HAZARDS	GROUP	POLLUTANT /
					LTD. QTY.

U.S. DOT - ROAD

UN	1866	Resin solution	3		

CFR RAIL C

UN	1866	Resin solution	3	I	

U.S. DOT - INLAND WATERWAYS

UN	1866	Resin solution	3	11	

TDG ROAD C

UN	1866	RESIN SOLUTION	3	II	

UN	1866	RESIN SOLUTION	3	II				

TDG INWT C

1866	RESIN SOLUTION	3	II	
	1866			

INTERNATIONAL MARITIME DANGEROUS GOODS

UN	1866	RESIN SOLUTION	3		

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO

UN	1866	Resin solution	3	II	

INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER

UN	1866	Resin solution	3	II	

MX_DG

UN	1866	RESIN SOLUTION	3	II	

*ORM = ORM-D, CBL = COMBUSTIBLE LIQUID

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Marine pollutant	no

Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)	
VINYL ACETATE MONOMER	108-05-4	5000	*	
*: Calculated RQ exceeds reasona				
SARA 304 Extremely Hazardous				
Components	CAS-No.	Component RQ	Calculated product RQ	
		(lbs)	(lbs)	
VINYL ACETATE MONOMER	108-05-4	5000	*	
VINYL ACETATE MONOMER	108-05-4		*	
*: Calculated RQ exceeds reasona	bly attainable upper	limit.		
	Flammable (gases, Serious eye damag Specific target orga	e or eye irritation	or solids) r repeated exposure)	
	This material does not contain any components with a section 302 EHS TPQ.			
	This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.			
Pennsylvania Right To Know				
2-Butenedioic acid (2Z)-, 1-butyl ester, polymer with ethenyl acetate and rel- (1R,2R,4S)-1,7,7-trimethylbicyclo[2.2.1]hept- 2-yl 2-pr			91-7	
ETHANOL		64-17-5		
polymer with ethe	d (2Z)-, 1-butyl esten nyl acetate and rel- trimethylbicyclo[2.2		91-7	

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2-yl 2-pr

ETHANOL

64-17-5

• •	This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm. ct are reported in the following inventories: All components of this product are on the Canadian DSL
AICS	On the inventory, or in compliance with the inventory
ENCS	On the inventory, or in compliance with the inventory
KECI	On the inventory, or in compliance with the inventory
PICCS	Not in compliance with the inventory
IECSC	Not in compliance with the inventory
TSCA	On the inventory, or in compliance with the inventory

Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIOC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (USA)

SECTION 16. OTHER INFORMATION

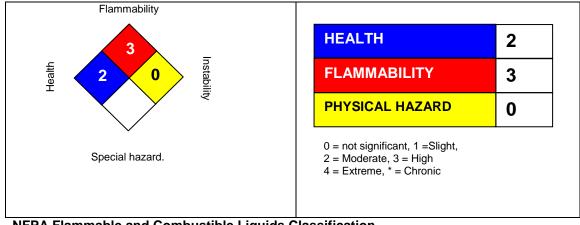
Further information

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NFPA:

HMIS III:

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NFPA Flammable and Combustible Liquids Classification Flammable Liquid Class IB

Full text of H-Statements

H225	Highly flammable liquid and vapor.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.

Sources of key data used to compile the Safety Data Sheet Ashland internal data including own and sponsored test reports The UNECE administers regional agreements implementing harmonised classification for labelling (GHS) and transport.

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This SDS has been prepared by Ashland's Environmental Health and Safety Department (1-800-325-3751).

Full text of other abbreviations

AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS -

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Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS -Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx -Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA -International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO -International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO -International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 -Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA -National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD -Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS -Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative