

# SAFETY DATA SHEET

Revision date 15-Jun-2017 Version 2 Supersedes Date: 26-May-2017

## Section 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name NORMAL HARDENER

Product Code AD-55204.Q01

UN/ID no UN1263

Recommended Use Paint, Coatings

## Details of the supplier of the safety data sheet

See section 16 for more information

ADVANTAGE REFINISH PRODUCTS

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## **Section 2: HAZARDS IDENTIFICATION**

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR) and the SDS contains all the information required by the HPR

## Classification

Acute toxicity - Inhalation (Dusts/Mists)	Category 4
	9 ,
Respiratory sensitization	Category 1
Skin sensitization	Category 1
Carcinogenicity	Category 1B
Specific target organ toxicity (single exposure)	Category 3
Flammable liquids	Category 3

## Label elements



#### Signal word

#### **DANGER**

#### **HAZARD STATEMENTS**

Flammable liquid and vapor Harmful if inhaled

May cause allergy or asthma symptoms or breathing difficulties if inhaled

May cause an allergic skin reaction

May cause cancer

May cause drowsiness or dizziness

May cause respiratory irritation

#### **PREVENTION**

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection. Avoid breathing dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area. In case of inadequate ventilation wear respiratory protection. Contaminated work clothing should not be allowed out of the workplace. P210 - 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.

#### **RESPONSE**

IF exposed or concerned: Get medical advice/attention.

#### **Eyes**

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.

#### Skin

If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.

#### Inhalation

IF INHALED: Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

## Ingestion

Do NOT induce vomiting. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

#### Fire

In case of fire: Use CO2, dry chemical, or foam for extinction.

#### STORAGE

Store locked up. Store in a well-ventilated place. Keep container tightly closed. Store in a well-ventilated place. Keep cool.

#### **DISPOSAL**

Dispose of contents/containers in accordance with local regulations.

#### **OTHER HAZARDS**

Not applicable.

### **UNKNOWN ACUTE TOXICITY**

0% of the mixture consists of ingredient(s) of unknown toxicity.

## Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	weight-%
n-Butyl acetate	123-86-4	35 - 40
Hexamethylene diisocyanate homopolymer	28182-81-2	30 - 35
Isophoronediisocyanate, Homopolymer	53880-05-0	20 - <25
Solvent naphtha, petroleum, light aromatic	64742-95-6	3 - <5
Benzene, 1,2,4-trimethyl-	95-63-6	1 - <3

Isophorone diisocyanate	4098-71-9	0.3 - <1
Cumene	98-82-8	0.3 - <1
Ethylbenzene	100-41-4	0.1 - <0.3

## **Section 4: FIRST AID MEASURES**

#### **First Aid Measures**

#### General advice

IF exposed or concerned: Get medical advice/attention

#### Eve contact

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

## **Skin Contact**

If skin irritation or rash occurs: Get medical advice/attention IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower Wash contaminated clothing before reuse

#### Inhalation

IF INHALED: Remove person to fresh air and keep comfortable for breathing If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician

#### Ingestion

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell Do NOT induce vomiting

## Most important symptoms and effects, both acute and delayed

**Symptoms** No information available.

#### Indication of any immediate medical attention and special treatment needed

**Note to physicians**Treat symptomatically.

## **Section 5: FIRE FIGHTING MEASURES**

Flammable properties Flammable liquid.

flash point 77 °F / 25 °C

Upper flammability limit: No information available

Lower flammability limit: No information available

Autoignition temperature No information available

**Explosion data** 

Sensitivity to Mechanical Impact No information available. Sensitivity to Static Discharge No information available.

## Suitable extinguishing media

Dry chemical, CO2, water spray or alcohol-resistant foam.

Not to be used for safety reasons: Strong water jet

Hazardous combustion products Carbon monoxide. Carbon dioxide (CO2).

## Specific hazards arising from the chemical

Burning produces heavy smoke. Fire may produce irritating and/or toxic gases. In the event of fire and/or explosion do not breathe fumes. May cause sensitization by inhalation. May cause sensitization by skin contact.

## Special protective equipment for fire-fighters

Wear self-contained breathing apparatus and protective suit. Cool containers with flooding quantities of water until well after fire is out. Do not allow run-off from fire-fighting to enter drains or water courses.

## **Section 6: ACCIDENTAL RELEASE MEASURES**

### Personal precautions

Avoid breathing vapors or mists. Remove all sources of ignition. Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas. Take precautionary measures against static discharges.

#### **Environmental precautions**

Do not allow into any sewer, on the ground or into any body of water. If the product contaminates lakes, rivers or sewage, inform appropriate authorities in accordance with local regulations. Prevent further leakage or spillage if safe to do so. Local authorities should be advised if significant spillages cannot be contained.

#### **Methods for containment**

Prevent further leakage or spillage if safe to do so.

#### Methods for cleaning up

Dispose of waste product or used containers according to local regulations. Clean with detergents. Avoid solvent cleaners. Dam up. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Pick up and transfer to properly labeled containers. Clean contaminated surface thoroughly. Take up mechanically, placing in appropriate containers for disposal.

## Section 7: HANDLING AND STORAGE

#### General advice

Persons with a history of asthma, allergies, chronic or recurrent respiratory disease should not be exposed to any process in which this product is used. Examination of lung function should be carried out on a regular basis on persons spraying this product.

#### Advice on safe handling

Prevent the creation of flammable or explosive concentrations of vapor in air and avoid vapor concentration higher than the occupational exposure limits. Operators should wear anti-static footwear and clothing and floors should be of the conducting type. Use personal protection recommended in Section 8. Never use pressure to empty container. Comply with the health and safety at work laws. Prevent product from entering drains. Vapors are heavier than air and may spread along floors. Vapors may form explosive mixtures with air. Use only with adequate ventilation. Do not breathe dust/fume/gas/mist/vapors/spray. Use only in well-ventilated areas. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Take precautionary measures against static discharges. Use spark-proof tools and explosion-proof equipment. All equipment used when handling the product must be grounded.

#### **General Hygiene Considerations**

When using do not eat, drink or smoke. Wash contaminated clothing before reuse. Avoid contact with skin, eyes or clothing.

#### **Storage Conditions**

Keep/store only in original container. Store in accordance with local regulations. Keep unauthorized personnel away. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Keep container tightly closed in a dry and well-ventilated place. Keep tightly closed in a dry and cool place.

## Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

#### **Exposure Guidelines**

## **Exposure Limits**

If S\* appears in the OEL table, it indicates this chemical contains a skin notation.

Chemical Name	ACGIH TLV	Alberta	British Columbia	Ontario TWA	Quebec	OSHA PEL
n-Butyl acetate	STEL: 200 ppm	TWA: 150 ppm	TWA: 20 ppm	TWA: 150 ppm	TWA: 150 ppm	TWA: 150 ppm
123-86-4	TWA: 150 ppm	TWA: 713 mg/m <sup>3</sup>		STEL: 200 ppm	TWA: 713 mg/m <sup>3</sup>	TWA: 710 mg/m <sup>3</sup>
		STEL: 200 ppm			STEL: 200 ppm	
		STEL: 950 mg/m <sup>3</sup>			STEL: 950 mg/m <sup>3</sup>	
Benzene, 1,2,4-trimethyl-	TWA: 25 ppm	TWA: 25 ppm	TWA: 25 ppm	TWA: 25 ppm	TWA: 25 ppm	
95-63-6		TWA: 123 mg/m <sup>3</sup>			TWA: 123 mg/m <sup>3</sup>	

Isophorone diisocyanate	TWA: 0.005 ppm	TWA: 0.005 ppm	TWA: 0.005 ppm	TWA: 0.005 ppm	TWA: 0.005 ppm	
4098-71-9		TWA: 0.05 mg/m <sup>3</sup>	Ceiling: 0.01 ppm	CEV: 0.02 ppm	TWA: 0.045 mg/m <sup>3</sup>	
			Sensitizer			
Cumene	TWA: 50 ppm	TWA: 50 ppm	TWA: 25 ppm	TWA: 50 ppm	TWA: 50 ppm	TWA: 50 ppm
98-82-8		TWA: 246 mg/m <sup>3</sup>	STEL: 75 ppm		TWA: 246 mg/m <sup>3</sup>	TWA: 245 mg/m <sup>3</sup>
						S*
Ethylbenzene	TWA: 20 ppm	TWA: 100 ppm	TWA: 20 ppm	TWA: 20 ppm	TWA: 100 ppm	TWA: 100 ppm
100-41-4		TWA: 434 mg/m <sup>3</sup>			TWA: 434 mg/m <sup>3</sup>	TWA: 435 mg/m <sup>3</sup>
		STEL: 125 ppm			STEL: 125 ppm	
		STEL: 543 mg/m <sup>3</sup>			STEL: 543 mg/m <sup>3</sup>	

#### **Engineering Controls**

Ensure adequate ventilation, especially in confined areas. Provide local exhaust ventilation. In case of insufficient ventilation, wear suitable respiratory equipment.

### **Personal Protective Equipment**

#### Eye/face protection

Tight sealing safety goggles.

#### **Hand Protection**

There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals. Ensure that the breakthrough time of the glove material is not exceeded. Refer to glove supplier for information on breakthrough time for specific gloves. The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed. Gloves should be replaced regularly and if there is any sign of damage to the glove material. Always ensure that gloves are free from defects and that they are stored and used correctly. The performance or effectiveness of the glove may be reduced by physical / chemical damage and poor maintenance. Wear protective gloves.

#### Skin and body protection

Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact. Wear suitable protective clothing. Personnel should wear anti-static clothing made of natural fiber or of high temperature resistant synthetic fiber.

#### Respiratory protection

In case of mist, spray or aerosol exposure wear suitable personal respiratory protection and protective suit When workers are facing concentrations above the exposure limit they must use appropriate certified respirators

#### **Thermal Protection**

No information available

#### **Environmental exposure controls**

Do not allow into any sewer, on the ground or into any body of water. Local authorities should be advised if significant spillages cannot be contained.

#### Section 9: PHYSICAL AND CHEMICAL PROPERTIES

## Information on basic physical and chemical properties

Physical state liquid

Appearance No information available

Odor Solvent Color clear

Odor Threshold No information available PH value No information available No information available No information available

Boiling point / boiling range No information available °C / °F

flash point 25 °C / 77 °F

evaporation rate

Flammability (solid, gas)

No information available
No information available

Flammability Limit in Air

Upper flammability limit:
Lower flammability limit:
No information available

Density (lbs per US gallon) 8.44 specific gravity 1.01

Solubility(ies)

Partition coefficient

Autoignition temperature

No information available
No information available

Decomposition temperature Kinematic viscosity Dynamic viscosity No information available No information available No information available

Other information

## **Section 10: STABILITY AND REACTIVITY**

**Stability** Stable under normal conditions.

**Incompatible materials** Strong oxidizing agents.

Conditions to avoid Heat, flames and sparks.

Hazardous Decomposition Products Carbon monoxide. Carbon dioxide (CO2). Chlorine gas.

Possibility of Hazardous Reactions None under normal processing.

**Hazardous polymerization**None under normal processing.

## Section 11: TOXICOLOGICAL INFORMATION

## Information on likely routes of exposure

Eye contact Not applicable

**Skin Contact** 

May cause an allergic skin reaction

Ingestion Not applicable Inhalation

May cause respiratory irritation

Harmful if inhaled

May cause drowsiness or dizziness

## Numerical measures of toxicity - Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
n-Butyl acetate 123-86-4	= 10768 mg/kg (Rat)	> 17600 mg/kg ( Rabbit )	= 390 ppm (Rat) 4 h
Hexamethylene diisocyanate homopolymer 28182-81-2	-	-	= 18500 mg/m³(Rat)1 h
Isophoronediisocyanate, Homopolymer 53880-05-0	-	-	-
Solvent naphtha, petroleum, light aromatic 64742-95-6	= 8400 mg/kg (Rat)	> 2000 mg/kg(Rabbit)	= 3400 ppm (Rat) 4 h
Benzene, 1,2,4-trimethyl- 95-63-6	= 3280 mg/kg (Rat)	> 3160 mg/kg ( Rabbit )	= 18 g/m <sup>3</sup> ( Rat ) 4 h
Isophorone diisocyanate 4098-71-9	= 1097 mg/kg (Rat)	1060 - 4780 mg/kg (Rabbit)	= 0.135 mg/L (Rat) 4 h
Cumene 98-82-8	= 1400 mg/kg (Rat)	= 12300 µL/kg(Rabbit)	> 3577 ppm (Rat) 6 h = 39000 mg/m³ (Rat) 4 h
Ethylbenzene 100-41-4	= 3500 mg/kg (Rat)	= 15400 mg/kg ( Rabbit )	= 17.2 mg/L (Rat) 4 h

#### Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (inhalation-dust/mist) 4.3 mg/l ATEmix (inhalation-vapor) 31 mg/l

**UNKNOWN ACUTE TOXICITY** 0% of the mixture consists of ingredient(s) of unknown toxicity.

#### Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chemical Name	ACGIH	<u>IARC</u>	NTP	OSHA
Cumene 98-82-8		Group 2B	Reasonably Anticipated	X
Ethylbenzene 100-41-4	А3	Group 2B		X

ACGIH (American Conference of Governmental Industrial Hygienists)

A3 - Animal Carcinogen.

IARC (International Agency for Research on Cancer)

Group 2B - Possibly Carcinogenic to Humans.

NTP (National Toxicology Program)

Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen.

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present.

Skin corrosion/irritation Not applicable Serious eye damage/eye irritation Not applicable

**Skin sensitization** May cause an allergic skin reaction

Respiratory sensitization May cause allergy or asthma symptoms or breathing difficulties if inhaled

Germ cell mutagenicity
Carcinogenicity
Reproductive Toxicity
Not applicable
Not applicable

Specific target organ toxicity (single May cause respiratory irritation May cause drowsiness or dizziness

exposure)

Specific target organ toxicity

toxicity Not applicable

(repeated exposure)

Aspiration hazard Not applicable

## **Section 12: ECOLOGICAL INFORMATION**

**Ecotoxicity** 

Environmental precautions Prevent product from entering drains.

Persistence and degradability

No information available

Bioaccumulation

No information available

**Mobility** 

No information available

Other adverse effects No information available

## Section 13: DISPOSAL CONSIDERATIONS

Waste from residues/unused

products

Disposal should be in accordance with applicable regional, national and local laws and

regulations

Contaminated packaging Improper disposal or reuse of this container may be dangerous and illegal.

## **Section 14: TRANSPORT INFORMATION**

	<u>TDG</u>	<u>IMDG</u>	<u>IATA</u>
UN/ID no	UN1263	UN1263	UN1263
Proper shipping name	Paint	Paint	Paint
Hazard Class	3	3	3
Packing Group	III	III	III

Environmental hazard Not applicable

**Special Provisions** 163, 223, 367 955 A3, A72, A192

**EmS-No** F-E, S-E

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No information available

from listing

The supplier may apply one of the following exceptions: Combustible Liquid (49 CFR 173.150(f)); Consumer Commodity (49 CFR 173.150(c), ICAO/IATA SP A112); Limited Quantity (49 CFR 173.150(b), ICAO Part 3 Chapter 4, IATA 2.7, IMDG Chapter 3.4); Viscous Liquid (49 CFR 173.121(b), IMDG 2.3.2.2, IATA 3.3.3.1.1, ICAO 3.2.2, ADR 2.2.3.1.5); Does Not Sustain Combustion (49 CFR 173.120(a), IATA 3.3.1.3, ICAO 3.1.3, IMDG 2.3.1.3, ADR 2.2.3.1.1 Note 1); or others as allowed under hazardous materials/dangerous goods regulations.

## Section 15: REGULATORY INFORMATION

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL** - Canadian Domestic Substances List

All components are listed or exempt from listing
All components are listed or exempt

Chemical Name	Canada - NPRI (National Pollutant Release Inventory)	
n-Butyl acetate	Part 5, Individual Substances	
Solvent naphtha, petroleum, light aromatic	Part 5, Other Groups and Mixtures	
Benzene, 1,2,4-trimethyl-	Part 1, Group A Substance; Part 5, Individual Substances	
Isophorone diisocyanate	Part 1, Group A Substance	
Cumene	Part 1, Group A Substance	
Ethylbenzene	Part 1, Group A Substance	

## **Section 16: OTHER INFORMATION**

**HMIS** 

Health hazards 3\*

\* = Chronic Health Hazard

Flammability 3 Physical hazards 0 Personal Protection X

Prepared By Regulatory Department

Revision date 15-Jun-2017

Revision Note No information available

**Disclaimer** 

The information on this Safety Data Sheet (SDS) is based on the present state of our knowledge, current national legislation and guidelines. As the specific conditions of use of the product are outside the supplier's knowledge and control the user is responsible for ensuring that the requirements of relevant legislation are complied with. This SDS should not be construed as any guarantee of the technical performance or suitability for particular applications. UNLESS SUPPLIER AGREES OTHERWISE IN WRITING, SUPPLIER MAKES NO WARRANTIES, EXPRESS OR IMPLIED, AND DISCLAIMS ALL IMPLIED WARRANTIES INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR FREEDOM FROM PATENT INFRINGEMENT. SUPPLIER WILL NOT BE LIABLE FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES.

**End of Safety Data Sheet**