

YVA951_E1

Safety Data Sheet PERFECTION PLUS VARNISH CURING AGENT



Bulk Sales Reference No.: YVA951
SDS Revision Date: 01/16/2019
SDS Revision Number: E1-3

1. Identification of the preparation and company

1.1. Product identifier

Product Identity PERFECTION PLUS VARNISH CURING AGENT
Bulk Sales Reference No. YVA951

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended Use See Technical Data Sheet.

1.3. Details of the supplier of the safety data sheet

Company Name Akzo Nobel Coatings
Manufacturer:
Akzo Nobel Coatings
International Paint
6001 Antoine Drive
Houston, Texas 77091

Emergency

CHEMTREC (800) 424-9300
International Paint (713) 527-3887
Poison Control Center (800) 854-6813
Customer Service
International Paint (800) 589-1267
Fax No. (800) 631-7481

2. Hazard identification of the product

2.1. Classification of the substance or mixture

Flam. Liq. 3;H226 Flammable liquid and vapor.
Skin Irrit. 2;H315 Causes skin irritation.
Eye Irrit. 2;H319 Causes serious eye irritation.
Skin Sens. 1;H317 May cause an allergic skin reaction.
Aquatic Chronic 3;H412 Harmful to aquatic life with long lasting effects.

2.2. Label elements

Using the Toxicity Data listed in section 11 & 12 the product is labelled as follows.



Warning.

H226 Flammable liquid and vapor.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H412 Harmful to aquatic life with long lasting effects.

P210 Keep away from heat / sparks / open flames / hot surfaces - No smoking.
 P235 Keep cool.
 P240 Ground / bond container and receiving equipment.
 P241 Use explosion-proof electrical / ventilating / light / equipment.
 P242 Use only non-sparking tools.
 P243 Take precautionary measures against static discharge.
 P261 Avoid breathing dust / fume / gas / mist / vapors / spray.
 P272 Contaminated work clothing should not be allowed out of the workplace.
 P273 Avoid release to the environment.
 P280 Wear protective gloves / eye protection / face protection.
 P302+352 IF ON SKIN: Wash with soap and water.
 P303+361+353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
 P305+351+338 IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
 P333+313 If skin irritation or a rash occurs: Get medical advice/attention.
 P337 If eye irritation persists:.
 P362 Take off contaminated clothing and wash before reuse.
 P363 Wash contaminated clothing before reuse.
 P370 In case of fire: Use water spray, fog, or regular foam..
 P403+233 Store in a well ventilated place. Keep container tightly closed.
 P501 Dispose of contents / container in accordance with local / national regulations.

HMIS Rating Health: 2* Flammability: 3 Reactivity: 0

3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
HDI Homopolymer CAS Number: 0028182-81-2	50 - 75	Skin Sens. 1;H317	[1]
2-Methoxy-1-Methylethyl Acetate CAS Number: 0000108-65-6	10 - 25	Flam. Liq. 3;H226	[1]
Xylene CAS Number: 0001330-20-7	10 - 25	Flam. Liq. 3;H226 Acute Tox. 4;H332 Acute Tox. 4;H312 Skin Irrit. 2;H315	[1][2]
3-Methoxybutyl acetate CAS Number: 0004435-53-4	10 - 25	Eye Irrit. 2;H319	[1]
Ethyl orthoformate CAS Number: 0000122-51-0	1.0 - 10	Flam. Liq. 2;H225	[1]
1,6-Hexamethylene Diisocyanate CAS Number: 0000822-06-0	0.10 - 1.0	Acute Tox. 3;H331 Eye Irrit. 2;H319 STOT SE 3;H335 Skin Irrit. 2;H315 Resp. Sens. 1;H334 Skin Sens. 1;H317	[1][2]

[1] Substance classified with a health or environmental hazard.

[2] Substance with a workplace exposure limit.

[3] PBT-substance or vPvB-substance.

*The full texts of the phrases are shown in Section 16.

4. First aid measures

4.1. Description of first aid measures

General Remove contaminated clothing and shoes. Get medical attention immediately. Wash clothing before reuse. Thoroughly clean or destroy contaminated shoes.

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Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.
Eyes	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.
Skin	In case of contact, immediately flush skin with soap and plenty of water. Get medical attention immediately.
Ingestion	If swallowed, immediately contact Poison Control Center at 1-800-854-6813. DO NOT induce vomiting unless instructed to do so by medical personnel. Never give anything by mouth to an unconscious person.

4.2. Most important symptoms and effects, both acute and delayed

Overview	NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal. Avoid contact with eyes, skin and clothing.
Inhalation	Harmful if inhaled. Causes nose and throat irritation. Vapors may affect the brain or nervous system causing dizziness, headache or nausea.
Eyes	Causes severe eye irritation. Avoid contact with eyes.
Skin	Causes skin irritation. May be harmful if absorbed through the skin.
Ingestion	Harmful if swallowed. May cause abdominal pain, nausea, vomiting, diarrhea, or drowsiness.

5. Fire-fighting measures

5.1. Extinguishing media

CAUTION: This product has a very low flashpoint. Use of water spray when fighting fire may be inefficient. SMALL FIRES: Use dry chemical, CO₂, water spray or alcohol-resistant foam. LARGE FIRES: Use water spray, fog, or alcohol-resistant foam. Do not use straight streams. Move containers from fire area if you can do so without risk. Runoff from fire control may cause pollution. Dike fire control water for later disposal. Do not scatter the material.

5.2. Special hazards arising from the substance or mixture

No data available

5.3. Advice for fire-fighters

Cool closed containers exposed to fire by spraying them with water. Do not allow run off water and contaminants from fire fighting to enter drains or water courses.

ERG Guide No.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

ELIMINATE ALL IGNITION SOURCES (no smoking, flares, sparks or flames in immediate area). Use only non-sparking equipment to handle spilled material and absorbent. Do not touch or walk through spilled material. Stop leak if you can do so without risk. Prevent entry into waterways, sewers, basements or confined areas. A vapor suppressing foam may be used to reduce vapors. Absorb or cover with dry earth, sand, or other non-combustible material and transfer to containers. Use non-sparking tools to collect absorbed material.

6.2. Environmental precautions

Do not allow spills to enter drains or watercourses.

6.3. Methods and material for containment and cleaning up

CALL CHEMTREC at (800)-424-9300 for emergency response. Isolate spill or leak area immediately for at least 25 to 50 meters (80 to 160 feet) in all directions. Keep unauthorized personnel away. Stay upwind. Keep out of low areas. Ventilate closed spaces before entering. LARGE SPILLS: Consider initial downwind evacuation for at least 300 meters (1000 feet).

7. Handling and storage

7.1. Precautions for safe handling

Handling

Protective equipment should be selected to provide protection from exposure to the chemicals listed in Section 3 of this document. Depending on the site-specific conditions of use, protective gloves, apron, boots, head and face protection may be required to prevent contact. The equipment must be thoroughly cleaned, or discarded after each use.

In Storage

Keep away from heat, sparks and flame.

7.2. Conditions for safe storage, including any incompatibilities

Store between 40-100F (4-38C).

Avoid contact with eyes, skin and clothing.

Strong oxidizing agents.

Do not smoke. Extinguish all flames and pilot lights, and turn off stoves, heaters, electric motors and other sources of ignition during use and until all vapors are gone.

7.3. Specific end use(s)

Close container after each use.

Wash thoroughly after handling.

Prevent build-up of vapors by opening all windows and doors to achieve cross-ventilation.

8. Exposure controls and personal protection

8.1. Control parameters

Exposure

CAS No.	Ingredient	Source	Value
0000108-65-6	2-Methoxy-1-Methylethyl Acetate	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit
		OHSA, CAN	50 ppm TWA; 270 mg/m ³ TWA
		Mexico	No Established Limit
		Brazil	No Established Limit
0000122-51-0	Ethyl orthoformate	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit
		OHSA, CAN	No Established Limit
		Mexico	No Established Limit
		Brazil	No Established Limit
0000822-06-0	1,6-Hexamethylene Diisocyanate	OSHA	No Established Limit
		ACGIH	0.005 ppm TWA
		NIOSH	0.005 ppm TWA; 0.035 mg/m ³ TWA0.020 ppm Ceiling (10 min); 0.140 mg/m ³ Ceiling (10 min)
		Supplier	No Established Limit
		OHSA, CAN	0.005 ppm TWA (designated substances regulation, listed under Isocyanates, organic compounds); 0.02 ppm Ceiling (designated substances regulation, listed under Isocyanates, organic compounds0.005 ppm TWA (listed under Isocyanates, organic compounds (Hexamethylene diisocyanate (HDI)));
		Mexico	0.005 ppm TWA VLE-PPT
		Brazil	No Established Limit
0001330-20-7	Xylene	OSHA	100 ppm TWA; 435 mg/m ³ TWA150 ppm STEL; 655 mg/m ³ STEL
		ACGIH	100 ppm TWA150 ppm STEL
		NIOSH	No Established Limit
		Supplier	No Established Limit
		OHSA, CAN	100 ppm TWA150 ppm STEL
		Mexico	100 ppm TWA VLE-PPT150 ppm STEL [PPT-CT]
		Brazil	78 ppm TWA LT; 340 mg/m ³ TWA LT
0004435-53-4	3-Methoxybutyl acetate	OSHA	No Established Limit
		ACGIH	No Established Limit

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		NIOSH	No Established Limit
		Supplier	No Established Limit
		OHSA, CAN	No Established Limit
		Mexico	No Established Limit
		Brazil	No Established Limit
0028182-81-2	HDI Homopolymer	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit
		OHSA, CAN	No Established Limit
		Mexico	No Established Limit
		Brazil	No Established Limit

Health Data

CAS No.	Ingredient	Source	Value
0000108-65-6	2-Methoxy-1-Methylethyl Acetate	NIOSH	No Established Limit
0000122-51-0	Ethyl orthoformate	NIOSH	No Established Limit
0000822-06-0	1,6-Hexamethylene Diisocyanate	NIOSH	Respiratory effects and sensitization pulmonary irritation (Listed under
0001330-20-7	Xylene	NIOSH	Central nervous system depressant; respiratory and eye irritation
0004435-53-4	3-Methoxybutyl acetate	NIOSH	No Established Limit
0028182-81-2	HDI Homopolymer	NIOSH	No Established Limit

Carcinogen Data

CAS No.	Ingredient	Source	Value
0000108-65-6	2-Methoxy-1-Methylethyl Acetate	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0000122-51-0	Ethyl orthoformate	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0000822-06-0	1,6-Hexamethylene Diisocyanate	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0001330-20-7	Xylene	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: Yes; Group 4: No;
0004435-53-4	3-Methoxybutyl acetate	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0028182-81-2	HDI Homopolymer	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;

8.2. Exposure controls

Respiratory

Select equipment to provide protection from the ingredients listed in Section 3 of this document. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates dust, vapor, or mist levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH approved) during and after application. Follow respirator manufacturer's

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directions for respirator use. FOR USERS OF 3M RESPIRATORY PROTECTION ONLY: For information and assistance on 3M occupational health and safety products, call OH&ESD Technical Service toll free in U.S.A. 1-800-243-4630, in Canada call 1-800-267-4414. Please do not contact these numbers regarding other manufacturer's respiratory protection products. 3M does not endorse the accuracy of the information contained in this Material Safety Data Sheet.

Eyes	Avoid contact with eyes. 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, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.
Skin	Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products. When there is a risk of ignition from static electricity, wear antistatic protective clothing and footwear. Any additional personal protective equipment or measures should be selected based on the risk assessment of the task being performed and should be approved by a specialist before handling this product.
Engineering Controls	Depending on the site-specific conditions of use, provide adequate ventilation.
Other Work Practices	Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Use good personal hygiene practices. Wash hands before eating, drinking, using toilet facilities, etc. Promptly remove soiled clothing and wash clothing thoroughly before reuse. Shower after work using plenty of soap and water.

9. Physical and chemical properties

Appearance	Coloured Liquid
Odor threshold	Not Measured
pH	No Established Limit
Melting point / freezing point	Not Measured
Initial boiling point and boiling range	140 (°C) 284 (°F)
Flash Point	32 (°C) 90 (°F)
Evaporation rate (Ether = 1)	Not Measured
Flammability (solid, gas)	Not Applicable
Upper/lower flammability or explosive limits	Lower Explosive Limit: .7 Upper Explosive Limit: No Established Limit
vapor pressure (Pa)	Not Measured
Vapor Density	Heavier than air
Specific Gravity	1.05
Solubility in Water	Not Measured
Partition coefficient n-octanol/water (Log Kow)	Not Measured
Auto-ignition temperature	Not Measured
Decomposition temperature	Not Measured
Viscosity (cSt)	No Established Limit Not Measured
VOC %	Refer to the Technical Data Sheet or label where information is available.

10. Stability and reactivity

10.1. Reactivity

No data available

10.2. Chemical stability

This product is stable and hazardous polymerization will not occur. Not sensitive to mechanical impact. Excessive heat and fumes generation can occur if improperly handled.

10.3. Possibility of hazardous reactions

No data available

10.4. Conditions to avoid

No data available

10.5. Incompatible materials

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Strong oxidizing agents.

10.6. Hazardous decomposition products

No data available

11. Toxicological information

Acute toxicity

NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr
HDI Homopolymer - (28182-81-2)	5,000.00, Rat - Category: 5	No data available	No data available	No data available
2-Methoxy-1-Methylethyl Acetate - (108-65-6)	6,190.00, Rat - Category: NA	2,001.00, Rabbit - Category: 5	No data available	No data available
Xylene - (1330-20-7)	4,299.00, Rat - Category: 5	1,548.00, Rabbit - Category: 4	No data available	20.00, Rat - Category: NA
3-Methoxybutyl acetate - (4435-53-4)	4,210.00, Rat - Category: 5	No data available	No data available	No data available
Ethyl orthoformate - (122-51-0)	7,060.00, Rat - Category: NA	17,820.00, Rabbit - Category: NA	No data available	No data available
1,6-Hexamethylene Diisocyanate - (822-06-0)	746.00, Rat - Category: 4	7,000.00, Rabbit - Category: NA	No data available	No data available

Item	Category	Hazard
Acute Toxicity (mouth)	Not Classified	Not Applicable
Acute Toxicity (skin)	Not Classified	Not Applicable
Acute Toxicity (inhalation)	Not Classified	Not Applicable
Skin corrosion/irritation	2	Causes skin irritation.
Eye damage/irritation	2	Causes serious eye irritation.
Sensitization (respiratory)	Not Classified	Not Applicable
Sensitization (skin)	1	May cause an allergic skin reaction.
Germ toxicity	Not Classified	Not Applicable
Carcinogenicity	Not Classified	Not Applicable
Reproductive Toxicity	Not Classified	Not Applicable
Specific target organ systemic Toxicity (repeated exposure)	Not Classified	Not Applicable
Aspiration hazard	Not Classified	Not Applicable

12. Ecological information

12.1. Toxicity

No additional information provided for this product. See Section 3 for chemical specific data.

Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/l	48 hr EC50 crustacea, mg/l	ErC50 algae, mg/l
HDI Homopolymer - (28182-81-2)	100.00, Danio rerio	100.00, Daphnia magna	100.00 (72 hr), Scenedesmus subspicatus

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2-Methoxy-1-Methylethyl Acetate - (108-65-6)	100.00, Oncorhynchus mykiss	501.00, Daphnia magna	1,001.00 (96 hr), Pseudokirchnerella subcapitata
Xylene - (1330-20-7)	3.30, Oncorhynchus mykiss	8.50, Palaemonetes pugio	100.00 (72 hr), Chlorococcales
3-Methoxybutyl acetate - (4435-53-4)	7.10, Danio rerio	360.00, Daphnia magna	Not Available
Ethyl orthoformate - (122-51-0)	592.00, Leuciscus idus	Not Available	Not Available
1,6-Hexamethylene Diisocyanate - (822-06-0)	82.80, Danio rerio	89.10, Daphnia magna	77.40 (72 hr), Desmodemus subspicatus

12.2. Persistence and degradability

No data available

12.3. Bioaccumulative potential

Not Measured

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

12.6. Other adverse effects

No data available

13. Disposal considerations

13.1. Waste treatment methods

Do not allow spills to enter drains or watercourses.

Dispose of in accordance with local, state and federal regulations. (Also reference RCRA information in Section 15 if listed).

14. Transport information

14.1. UN number UN 1263

14.2. UN proper shipping name PAINT

14.3. Transport hazard class(es)

DOT (Domestic Surface Transportation)

Proper Shipping Name PAINT
Hazard Class 3 - Flammable

UN / NA Number UN 1263

Packing Group III
CERCLA/DOT RQ 105 gal. / 917 lbs.

IMO / IMDG (Ocean Transportation)

IMDG Proper Shipping Name PAINT
IMDG Hazard Class 3 - Flammable
Sub Class Not applicable

IMDG Packing Group III
System Reference 181
Code

14.4. Packing group III

14.5. Environmental hazards

IMDG Marine Pollutant: No

14.6. Special precautions for user

Not Applicable

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not Applicable

15. Regulatory information

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Regulatory Overview The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented. All ingredients of this product are listed on the TSCA (Toxic Substance Control Act) Inventory or are not required to be listed on the TSCA Inventory.

WHMIS Classification B2 D2B

DOT Marine Pollutants (10%):

(No Product Ingredients Listed)

DOT Severe Marine Pollutants (1%):

(No Product Ingredients Listed)

EPCRA 311/312 Chemicals and RQs (>.1%) :

1,6-Hexamethylene Diisocyanate (100 lb final RQ; 45.4 kg final RQ)

Xylene (100 lb final RQ; 45.4 kg final RQ)

EPCRA 302 Extremely Hazardous (>.1%) :

(No Product Ingredients Listed)

EPCRA 313 Toxic Chemicals (>.1%) :

1,6-Hexamethylene Diisocyanate

Xylene

Mass RTK Substances (>1%) :

Ethyl orthoformate

Xylene

Penn RTK Substances (>1%) :

Ethyl orthoformate

Xylene

Penn Special Hazardous Substances (>.01%) :

(No Product Ingredients Listed)

RCRA Status:

(No Product Ingredients Listed)

N.J. RTK Substances (>1%) :

3-Methoxybutyl acetate

Ethyl orthoformate

Xylene

N.J. Special Hazardous Substances (>.01%) :

Ethyl orthoformate

Xylene

N.J. Env. Hazardous Substances (>.1%) :

1,6-Hexamethylene Diisocyanate

Xylene

Proposition 65 - Carcinogens (>0%):

(No Product Ingredients Listed)

Proposition 65 - Female Repro Toxins (>0%):

(No Product Ingredients Listed)

Proposition 65 - Male Repro Toxins (>0%):

(No Product Ingredients Listed)

Proposition 65 - Developmental Toxins (>0%):

(No Product Ingredients Listed)

16. Other information

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is:

H225 Highly flammable liquid and vapor.

H226 Flammable liquid and vapor.

H312 Harmful in contact with skin.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H331 Toxic if inhaled.

H332 Harmful if inhaled.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation.

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