

SAFETY DATA SHEET

Section 1. Identification

Product identifier : 4024669793161
Product name : Standox VOC Hardener Xtreme Slow 4590
Other means of identification : Not available.
Date of issue : 8/10/2022
Version : 13.02

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

Identified uses : Coating component.
Uses advised against : Not for sale to or use by consumers.

Supplier's details : Axalta Coating Systems Australia Pty Limited
 16 Darling Street, Marsden Park NSW 2765, Australia
 Importer: Resene Automotive & Light Industrial
 4 Te Apunga Place, Mt Wellington, Auckland, New Zealand
 Telephone: +64 (09) 259 2738

Product information : +61 (0)2 8818 4300

Emergency telephone number : +(64) 9801 0034 NZ Poisons Information Center: 0800 764 766 or +(64) 3 479 7248

Section 2. Hazards identification

This material is classified as hazardous according to criteria in the Hazardous Substances (Hazard Classification) Notice 2020.

This material is classified as DANGEROUS GOODS according to criteria in New Zealand Standard 5433:2012 Transport of Dangerous Goods on Land.

HSNO Classification : FLAMMABLE LIQUIDS - Category 3
 EYE IRRITATION - Category 2
 RESPIRATORY SENSITISATION - Category 1
 SKIN SENSITISATION - Category 1

GHS label elements

Symbol :



Signal word : Danger

Hazard statements : Flammable liquid and vapour.
 May cause an allergic skin reaction.
 Causes serious eye irritation.
 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Section 2. Hazards identification

Precautionary statements

- Prevention** : Wear respiratory protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid breathing vapour. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves, protective clothing and eye or face protection.
- Response** : IF INHALED: Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or doctor. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention. 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 or attention.
- Storage** : Not applicable.
- Disposal** : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Other hazards which do not result in classification : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Ingredient name	% (w/w)	CAS number
Hexamethylene diisocyanate, oligomers	30 - <60	28182-81-2
n-butyl acetate	30 - <60	123-86-4
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	1 - <3	2530-83-8
Solvent naphtha (petroleum), light arom.	1 - <3	64742-95-6

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. In the event of any complaints or symptoms, avoid further exposure.

Section 4. First aid measures

- Ingestion** : Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Inhalation** : May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- Ingestion** : No known significant effects or critical hazards.
- Skin contact** : May cause an allergic skin reaction.
- Eye contact** : Causes serious eye irritation.

Over-exposure signs/symptoms

- Inhalation** : Adverse symptoms may include the following:
wheezing and breathing difficulties
asthma
- Ingestion** : No specific data.
- Skin** : Adverse symptoms may include the following:
irritation
redness
- Eyes** : Adverse symptoms may include the following:
pain or irritation
watering
redness

Indication of immediate medical attention and special treatment needed, if necessary

- Specific treatments** : Not available.
- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Firefighting measures

Extinguishing media

Suitable	: Use dry chemical, CO ₂ , water spray (fog) or foam.
Not suitable	: Do not use water jet.
Specific hazards arising from the chemical	: Flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion.
Hazardous thermal decomposition products	: Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides metal oxide/oxides
Hazchem code	: •3Y
Special precautions for fire-fighters	: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
Special protective equipment for fire-fighters	: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Remark	: Not available.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	: If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Environmental precautions	: Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and material for containment and cleaning up

Small spill	: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Large spill	: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

- Precautions for safe handling** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitisation problems or asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapour or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidising materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Hexamethylene diisocyanate, oligomers	NZ HSWA 2015 - GRWM 2016 (New Zealand, 11/2020). Skin sensitiser. Inhalation sensitiser. WES-TWA: 0.02 mg/m ³ , (measured as -NCO) 8 hours. WES-STEL: 0.07 mg/m ³ , (measured as -NCO) 15 minutes.
n-butyl acetate	NZ HSWA 2015 - GRWM 2016 (New Zealand, 11/2020). WES-TWA: 150 ppm 8 hours. WES-TWA: 713 mg/m ³ 8 hours. WES-STEL: 950 mg/m ³ 15 minutes. WES-STEL: 200 ppm 15 minutes.

- Appropriate engineering controls** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Section 8. Exposure controls/personal protection

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Eye protection** : 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 protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Section 9. Physical and chemical properties

Appearance

- Physical state** : Liquid.
- Colour** : Clear.
- Odour** : Not available.
- Odour threshold** : Not available.
- pH** : Not applicable.
- Melting point** : Not applicable.
- Boiling point** : 125 to 181°C (257 to 357.8°F)
- Flash point** : Closed cup: 35°C (95°F)
- Fire point** : Not available.
- Evaporation rate** : Not available.
- Flammability (solid, gas)** : Not available.
- Lower and upper explosive (flammable) limits** : Lower: 1.2%
Upper: 7.5%
- Vapour pressure** : 0.56 kPa (4.2 mm Hg)
- Vapour density** : Not available.
- Density** : 1.035 g/cm³

Section 9. Physical and chemical properties

Solubility	: Very slightly soluble in the following materials: cold water.
Partition coefficient: n-octanol/water	: Not applicable.
Auto-ignition temperature	: 280°C (536°F)
Decomposition temperature	: Not applicable.
SADT	: Not available.
SAPT	: Not available.
Viscosity	: Not available.
Flow time (ISO 2431)	: Not available.

Section 10. Stability and reactivity

Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.
Incompatible materials	: Reactive or incompatible with the following materials: oxidising materials
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on likely routes of exposure

Inhalation	: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Ingestion	: No known significant effects or critical hazards.
Skin contact	: May cause an allergic skin reaction.
Eye contact	: Causes serious eye irritation.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation	: Adverse symptoms may include the following: wheezing and breathing difficulties asthma
Ingestion	: No specific data.
Skin contact	: Adverse symptoms may include the following: irritation redness
Eye contact	: Adverse symptoms may include the following: pain or irritation watering redness

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

Acute toxicity

Section 11. Toxicological information

Product/ingredient name	Result	Species	Dose	Exposure
Hexamethylene diisocyanate, oligomers n-butyl acetate	LC50 Inhalation Dusts and mists	Rat	18500 mg/m ³	1 hours
	LC50 Inhalation Vapour	Rat	21.1 mg/l	4 hours
	LD50 Dermal	Rabbit	>17600 mg/kg	-
	LD50 Oral	Rat	10768 mg/kg	-
[3-(2,3-epoxypropoxy)propyl] trimethoxysilane	LC50 Inhalation Dusts and mists	Rat	>5.3 mg/l	4 hours
	LD50 Dermal	Rabbit - Male	4248 mg/kg	-
Solvent naphtha (petroleum), light arom.	LD50 Oral	Rat	7.01 g/kg	-
	LD50 Dermal	Rabbit	3492 mg/kg	-
	LD50 Oral	Rat	8400 mg/kg	-

Conclusion/Summary : Not available.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
[3-(2,3-epoxypropoxy)propyl] trimethoxysilane	Eyes - Mild irritant	Rabbit	-	100 mg	-
	Skin - Mild irritant	Rabbit	-	500 mg	-
	Eyes - Cornea opacity	Rabbit	4	-	-

Skin : Not available.

Eyes : Not available.

Respiratory : Not available.

Sensitisation

Not available.

Skin : Not available.

Respiratory : Not available.

Potential chronic health effects

General : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Inhalation : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Ingestion : No known significant effects or critical hazards.

Skin contact : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Eye contact : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Chronic toxicity

Not available.

Section 11. Toxicological information

Conclusion/Summary : Not available.

Carcinogenicity

Not available.

Conclusion/Summary : Not available.

Mutagenicity

Not available.

Conclusion/Summary : Not available.

Teratogenicity

Not available.

Conclusion/Summary : Not available.

Reproductive toxicity

Not available.

Conclusion/Summary : Not available.

Specific target organ toxicity

Not available.

Aspiration hazard

Name
Solvent naphtha (petroleum), light arom.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Inhalation (vapours)	30.68 mg/l
Inhalation (dusts and mists)	7.91 mg/l

Other information : Not available.

Section 12. Ecological information

Ecotoxicity : No known significant effects or critical hazards.

Aquatic and terrestrial toxicity

Product/ingredient name	Result	Species	Exposure
Hexamethylene diisocyanate, oligomers	Acute EC50 >100 mg/l	Daphnia - Daphnia magna	48 hours
	Acute LC50 >100 mg/l	Fish - danio rerio	96 hours
n-butyl acetate	Acute LC50 185000 µg/l Marine water	Fish - Menidia beryllina	96 hours
	Acute LC50 324 mg/l	Daphnia	48 hours
[3-(2,3-epoxypropoxy)propyl] trimethoxysilane	Acute LC50 55 mg/l	Fish	96 hours

Conclusion/Summary : Not available.

Persistence/degradability

Section 12. Ecological information

Product/ingredient name	Test	Result	Dose	Inoculum
Hexamethylene diisocyanate, oligomers	-	1 % - Not readily - 28 days	-	Activated sludge

Conclusion/Summary : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Hexamethylene diisocyanate, oligomers	-	-	Not readily

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Hexamethylene diisocyanate, oligomers	5.54	367.7	low
n-butyl acetate	2.3	-	low
Solvent naphtha (petroleum), light arom.	-	10 to 2500	high

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Mobility : Not available.




Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapour from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

Section 14. Transport information

	New Zealand Class (5433)	IMDG	IATA
UN number	UN1263	UN1263	UN1263
UN proper shipping name	PAINT RELATED MATERIAL	PAINT RELATED MATERIAL	PAINT RELATED MATERIAL
Transport hazard class(es)	3 	3 	3 
Packing group	III	III	III
Environmental hazards	No.	No.	No.

Additional information

New Zealand : **Hazchem code** •3Y
 Hazchem code : •3Y

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to IMO instruments : Not available.

Proper shipping name : Not available.
Ship type : Not available.
Pollution category : Not available.

The actual shipping description for this product may vary based several factors including, but not limited to, the volume of material, size of the container, mode of transport and use of exemptions or exceptions found in the applicable regulations. The information provided in Section 14 is one possible shipping description for this product. Consult your shipping specialist or supplier for appropriate assignment information.

Section 15. Regulatory information

HSNO Approval Number : HSR002662
HSNO Group Standard : Surface Coatings and Colourants (Flammable) Group Standard 2020
HSNO Classification : FLAMMABLE LIQUIDS - Category 3
 EYE IRRITATION - Category 2
 RESPIRATORY SENSITISATION - Category 1
 SKIN SENSITISATION - Category 1

Section 16. Other information

History

Date of issue	: 8/10/2022
Version	: 13.02
Prepared by	Product stewardship and regulatory compliance.
Key to abbreviations	: ACGIH = Association Advancing Occupational and Environmental Health ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals HSWA = Health and Safety at Work Act 2015 IATA = International Air Transport Association IBC = Intermediate Bulk Container IMDG = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coefficient MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) TLV = Threshold Limit Value WES = Workplace Exposure Standards

▣ Indicates information that has changed from previously issued version.

Notice to reader

This product is intended for industrial use only.

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