1. Identification of Substance & Company

Product

Product name	Renewcar 9H Plus Headlight Renewal Spray
HSNO approval	HSR002515
Approval description	Aerosols (Flammable) Group Standard 2020
UN number	1950
DG class	2.1
Proper Shipping Name	AEROSOL
Packaging group	NA
Hazchem code	3Y
Uses	Automotive refinish

Company Details

Company	**Renewcar Headlight Professional**
Physical Address	701D Great South Road Penrose Auckland
Telephone	021 153 1006
Website	www.renewcar.co.nz

Emergency Telephone Number: 0800 764 766

2. Hazard Identification

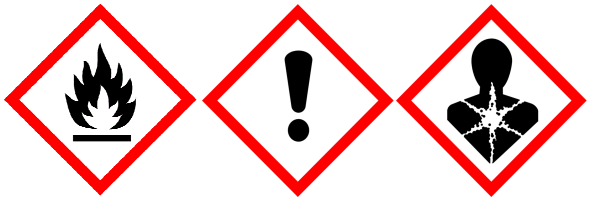
Approval

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO, Approval HSR002515, Aerosols (Flammable) Group Standard 2020). The substance has been classified as hazardous according to the criteria in the Hazardous substances (Hazard Classification) Notice 2020 and is classified as follows:

GHS Classes	Hazard Statements
Flammable aerosol category 1	H222 - Extremely flammable aerosol. H280 - Contains gas under pressure; may explode if heated.
Skin irritant category 2	H315 - Causes skin irritation.
Eye irritant category 2	H319 - Causes serious eye irritation.
Respiratory sensitiser category 1	H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin sensitiser category 1	H317 - May cause an allergic skin reaction.
Reproductive toxicity category 2	H361 - Suspected of damaging fertility or the unborn child.
STOT repeated exposure category 2	H373 - May cause damage to organs through prolonged or repeated exposure.

SYMBOLS

DANGER



Other Classifications

There are no other classifications that are known to apply.

Precautionary Statements

P103 - Read label before use.
P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P210 - Keep away from ignition sources. No smoking.
P211 - Do not spray on an open flame or other ignition source.
P251 - Pressurized container: Do not pierce or burn, even after use.
P260 - Do not breathe spray.

P264 - Wash hands thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P272 - Contaminated work clothing should not be allowed out of the workplace.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P281 - Use personal protective equipment as required.
P285 - In case of inadequate ventilation wear respiratory protection.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P304+P341 - IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing.
P342+P311 - If experiencing respiratory symptoms: Call a POISON CENTRE or doctor/physician.
P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P363 - Wash contaminated clothing before reuse.
P308+P313 - IF exposed or concerned: Get medical advice/ attention.
P314 - Get medical advice/attention if you feel unwell.
P410 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C.
P405 - Store locked up.
P501 - Dispose of contents/container in accordance with local/regional/national/international regulation.

3. Composition / Information on Ingredients

Component	CAS/ Identification	Conc (%)
xylene	1330-20-7	30-60
Hexamethylene-1,6-diisocyanate homopolymer	28182-81-2	10-30%
Flammable propellant – butane/propane mixture	106-97-8/74-98-6	balance

This is a commercial product whose exact ratio of components may vary. Trace quantities of impurities are also likely.

4. First Aid

General Information

If medical advice is needed, have product container or label at hand. You should call the National Poisons Centre if you feel that you may have been harmed or irritated by this product. The number is 0800 764 766 (0800 POISON) (24 hr emergency service).

Recommended first aid facilities Ready access to running water is required. Accessible eyewash is required.

Exposure

Swallowed IF SWALLOWED: Call a POISON CENTRE or doctor/physician if you feel unwell. Rinse mouth. Do NOT induce vomiting. Give a glass of water to drink. Contact a doctor if experiencing any symptoms.

Eye 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 occurs: Get medical advice/attention.

Skin contact IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/ attention. Take off contaminated clothing and wash before re-use.

Inhaled IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTRE or doctor/physician.

Advice to Doctor

Treat symptomatically

5. Firefighting Measures

Fire and explosion hazards: This product is a flammable aerosol. Containers can build up pressure if exposed to heat and/or fire and may explode. Vapours may form an explosive mixture with air. Vapours can travel to a source of ignition and flash back. Will float and can be re-ignited on surface water. Will burn if involved in a fire.

Suitable extinguishing substances: Carbon dioxide, extinguishing powder, foam.

Unsuitable extinguishing substances: Unknown.

Products of combustion: Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Water.

	May form toxic mixtures in air and may accumulate in sumps, pits and other low-lying spaces, forming potentially explosive mixtures.
Protective equipment:	Self-contained breathing apparatus. Safety boots, non-flammable overalls, gloves, hat and eye protection.
Hazchem code:	3Y

6. Accidental Release Measures

Containment	If greater than 1000L is stored, secondary containment and emergency plans to manage any potential spills must be in place. Prevent product from entering environment.
Emergency procedures	In the event of a large spillage alert the fire brigade to location and give brief description of hazard. Shut off all possible sources of ignition. Wear protective equipment to prevent skin, eye and respiratory exposure. Clear area of any unprotected personnel. Contain spill. Prevent by whatever means possible any spillage from entering drains, sewers, or water courses. If spray or gas escapes, increase ventilation.
Clean-up method	Collect product and seal in properly labelled containers or drums for disposal. If contamination of crops, sewers or waterways has occurred advise local emergency services.
Disposal	Mop up and collect recoverable material into labelled containers for recycling or salvage. Recycle containers wherever possible. This material may be suitable for approved landfill. Dispose of only in accord with all regulations.
Precautions	Wear protective equipment to prevent skin and eye contamination and the inhalation of vapour. Work up wind or increase ventilation.

7. Storage & Handling

Storage	Keep out of reach of children. Protect from sunlight. Do not expose to temperatures exceeding 50°C. Store in a well ventilated, cool, dry place. Keep away from heat, sparks, and flame. Store locked up.
Handling	Read product label before use. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. This product is highly flammable. Do not use near open flame, or sources of ignition. No smoking. Pressurized container: Do not pierce or burn, even after use. Use outdoors or in well-ventilated area. Wear protective gloves and eye protection. Wash hands with soap and water after handling. Contaminated work clothing should not be allowed out of the workplace. Wash protective clothing before reuse and separate to household laundry.

8. Exposure Controls / Personal Protective Equipment

Workplace Exposure Standards

A workplace exposure standard (WES) has not been established by WorkSafe NZ for this product. There is a general limit of 3mg/m^3 for respirable particulates and 10mg/m^3 for inhalable particulates when limits have not otherwise been established.

NZ Workplace Exposure Stds	Ingredient	WES-TWA*	WES-STEL
	Xylene	50ppm, 217mg/m^3	data unavailable
	Hexamethylene-1,6-diisocyanate homopolymer	0.02mg/m^3	0.07mg/m^3
	Butane	800ppm, 1900mg/m^3,	data unavailable
	Propane	simple asphyxiant	data unavailable

Engineering Controls

In industrial situations, it is expected that employee exposure to hazardous substances will be controlled to a level as far below the WES as practicable by applying the hierarchy of control required by the Health and Safety at Work Act (2015) and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016. Exposure can be reduced by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods. If you believe air borne concentrations of mists, dusts or vapours are high, you are advised to modify processes or increase ventilation.

Personal Protective Equipment

General	Personal Protective Equipment (PPE) should not be used as the primary means of exposure protection, except in the event of an accident or emergency situation or where all other means of protection have proven to inadequate. Clean PPE after use or dispose of as appropriate. Store PPE for re-use in a clean place. Regular training on the correct use of PPE should be provided. In particular the correct fitting and use of respirators and where applicable the cleaning of respirators should be undertaken.

Eyes

Avoid contact with eyes. Use safety glasses and or chemical splash goggles if splashes are possible. Select eye protection in accordance with AS/NZS 1337.

Skin

Avoid repeated or prolonged skin contact. Wear overalls, rubber boots and impervious gloves. Nitrile gloves are recommended. Protective gloves or suitably resistant material must comply with AS 2161. Replace frequently. Gloves should be checked for tears or holes before use. Protective clothing must comply with AS 2919, AS3765.1 or AS3765.2. PVC or rubber boots must comply with AS/NZS 2210.2 and selected and maintained in accordance with AS/NS2210.1. Remove protective clothing and wash exposed areas with soap and water prior to eating, drinking or smoking. Wash hands after handling.

Respiratory

A respirator when airborne concentrations approach the WES (section 8). Respirators must have filters appropriate to the duty and comply with AS/NZS1716 and selected, used and maintained in accordance with AS/NS 1715. Use a respirator with an organic vapour cartridge. If using a respirator, ensure that the cartridges are correct for the potential air contamination and are in good working order. Fit testing and clear guidelines and training for use and maintenance of PPE are necessary.

WES Additional Information

Not applicable

9. Physical & Chemical Properties

Appearance	liquid in an aerosol can
Odour	solvent odour
pH	no data
Vapour pressure	no data
Viscosity	no data
Boiling point	138-144°C
Volatile materials	no data
Freezing / melting point	no data
Solubility	not soluble in water
Specific gravity / density	no data
Flash point	27°C
Danger of explosion	no data
Auto-ignition temperature	464°C
Upper & lower flammable limits	no data
Corrosiveness	non corrosive

10. Stability & Reactivity

Stability	Stable
Conditions to be avoided	Flammable substance. Keep away from sources of ignition at all times. Containers should be kept closed in order to avoid contamination.
Incompatible groups	Oxidising agents
Substance Specific Incompatibility	none known
Hazardous decomposition products	Oxides of carbon
Hazardous reactions	none known

11. Toxicological Information

Summary

IF SWALLOWED: low oral toxicity.
IF IN EYES: vapours may be irritating to the eye.
IF ON SKIN: May cause skin irritation. Sensitised individuals may experience an allergic skin reaction.
IF INHALED: High vapour pressures may cause drowsiness and dizziness. May cause respiratory irritation. Sensitised individuals may experience an allergic reaction such as asthma.
CHRONIC TOXICITY: Prolonged exposure to xylene can cause nerve damage (CNS) and affect the liver and kidneys.
SENSITISATION: Product is a respiratory and contact sensitizer (Isocyanates)

Supporting Data

Acute	**Oral**	Using LD_{50}'s for ingredients, the Acute Toxicity Estimate (ATE) (oral) for the mixture is >2,000 mg/kg. Data considered includes: xylene 1590 mg/kg (mouse).
	Dermal	Using LD_{50}'s for ingredients, the Acute Toxicity Estimate (ATE) (dermal) for the mixture is >2,000 mg/kg. Data considered includes: xylene >1700mg/kg.
	Inhaled	Using LD_{50}'s for ingredients, the Acute Toxicity Estimate (ATE) (inhalation) for the mixture is >5mg/L/4h. Data considered includes: xylene 27.6 mg/L (rat, vapour), Hexamethylene-1,6-diisocyanate homopolymer LC_{50} (rat); 18500mg/kg.
	Eye	The mixture is considered to be an eye irritant, because some of the ingredients (xylene) present are considered eye irritants in more concentrated form.
	Skin	The mixture is considered to be a skin irritant, because some of the ingredients (xylene) are considered skin irritants in more concentrated form.
Chronic	**Sensitisation**	The mixture is considered to be a contact and respiratory sensitizer, because at least one of the ingredients (Hexamethylene-1,6-diisocyanate homopolymer) present in greater than 0.1% is known to be a contact and respiratory sensitizer.
	Mutagenicity	No ingredient present at concentrations > 0.1% is considered a mutagen.
	Carcinogenicity	No ingredient present at concentrations > 0.1% is considered a carcinogen. Xylene is Class 3 - unclassifiable as to carcinogenicity to humans.
	Reproductive / Developmental	The mixture is considered to be a suspected reproductive or developmental toxicant. Xylenes have been shown to cause developmental toxicity in animals at doses which are maternally toxic. They are not expected to impair fertility.
	Systemic	The mixture is considered to be a suspected target organ toxicant. Xylene is considered a systemic target organ toxicant, affected organs: Hepatic (Liver), Neurological (Nervous System), Renal (Urinary System or Kidneys).
	Aggravation of existing conditions	None known.

12. Ecological Data

Summary

This mixture is not considered ecotoxic. In all cases prevent this substance from entering drains, sewers and waterways.

Supporting Data

Aquatic	Using EC_{50}'s for ingredients, the calculated EC_{50} for the mixture is > 100 mg/L. Data considered includes: xylene 8.5mg/l (48hr, Palaemonetes pugio (Crustacea)), 3.3 mg/l (96hr, Oncorhynchus mykiss), 10mg/l (72hr, Skeletonema costatum), not bioaccumulative, readily biodegradable. , Hexamethylene-1,6-diisocyanate homopolymer no data, LPG >100, 0 0, 0 0, 0 0, 0 0, 0 0, 0 0
Bioaccumulation	No data for the mixture.
Degradability	No data for the mixture.
Soil	No data for soil toxicity for the mixture.
Terrestrial vertebrate	See acute toxicity.
Terrestrial invertebrate	No evidence of toxicity towards terrestrial invertebrates.
Biocidal	no data
Environmental effect levels	No EELs are available for this mixture or ingredients

13. Disposal Considerations

Restrictions	There are no product-specific restrictions, however, local council and resource consent conditions may apply, including requirements of trade waste consents.
Disposal method	Disposal of this product must comply with the Hazardous Substances (Disposal) Notice 2017 and the requirements of the Resource Management Act for which approval should be sought from the Regional Authority. The substance must be treated and therefore rendered non-hazardous before discharge to the environment.
Contaminated packaging	Disposal of contaminated packaging must comply with the Hazardous Substances (Disposal) Notice 2017 clause 12. Ensure that the package is rendered incapable of containing any substance and is disposed in a manner that is consistent with the requirements of the substance it contained and the material of the package. If possible reuse or recycle packaging. Do not incinerate.

14. Transport Information

Land Transport Rule: Dangerous Goods 2005 - NZS 5433:2007
Transport according to NZS 5433 (Transport of Hazardous Substances on Land). Considered a dangerous good for transport.

UN number:	1950	**Proper shipping name:**	AEROSOL
Class(es)	2.1	**Packing group:**	NA
Precautions:	No ignition sources.	**Hazchem code:**	3Y

IMDG

UN number:	1950	**Proper shipping name:**	AEROSOLS
Class(es)	2.1	**Packing group:**	not applicable
Precautions:	Flammable aerosol	**EMS code:**	F-E, S-E

IATA

UN number:	1950	**Proper shipping name:**	AEROSOLS
Class(es)	2.1	**Packing group:**	not applicable
Precautions:	Flammable aerosol	**ERG Guide:**	126

15. Regulatory Information

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO). Approval code: HSR002515, Aerosols (Flammable) Group Standard 2020. All ingredients appear on the New Zealand Inventory of Chemicals NZIoC.

Specific Controls

Key workplace requirements are:	
SDS	To be available within 10 minutes in workplaces storing any quantity.
Inventory	An inventory of all hazardous substances must be prepared and maintained.
Packaging	All hazardous substances should be appropriately packaged including substances that have been decanted, transferred or manufactured for own use or have been supplied
Labelling	Must comply with the Hazardous Substances (Labelling) Notice 2017.
Emergency plan	Required if > 1000L is stored.
Certified handler	Not required.
Tracking	Not required.
Bunding & secondary containment	Required if > 1000L is stored.
Signage	Required if > 3000L is stored.
Location compliance certificate	Required if > 3000L is stored.
Flammable zone	Must be established if > 3000L is stored.
Fire extinguisher	If > 3000L present.

Note: The above workplace requirements apply if only this particular substance is present. The complete set of controls for a location will depend on the classification and total quantities of other substances present in that location.

Other Legislation

In New Zealand, the use of this product may come under the Resource Management Act and Regulations, the Health and Safety at Work Act 2015 and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016, local Council Rules and Regional Council Plans.

16. Other Information

Abbreviations

Approval Code	Approval HSR002515, Aerosols (Flammable) Group Standard 2020 Controls, EPA. www.epa.govt.nz
CAS Number	Unique Chemical Abstracts Service Registry Number
EC_{50}	Ecotoxic Concentration 50% – concentration in water which is fatal to 50% of a test population (e.g. daphnia, fish species)
EPA	Environmental Protection Authority (New Zealand)
GHS	Globally Harmonised System of Classification and Labelling of Chemicals, 7th revised edition, 2017, published by the United Nations.
HAZCHEM Code	Emergency action code of numbers and letters that provide information to emergency services, especially fire fighters
HSNO	Hazardous Substances and New Organisms (Act and Regulations)
IARC	International Agency for Research on Cancer
LEL	Lower Explosive Limit
LD_{50}	Lethal Dose 50% – dose which is fatal to 50% of a test population (usually rats).
LC_{50}	Lethal Concentration 50% – concentration in air which is fatal to 50% of a test population (usually rats)
NZIoC	New Zealand Inventory of Chemicals
MSDS (SDS)	Material Safety Data Sheet (or Safety Data Sheet)
STEL	Short Term Exposure Limit - The maximum airborne concentration of a chemical or biological agent to which a worker may be exposed in any 15 minute period, provided the TWA is not exceeded
STOT RE	System Target Organ Toxicity – Repeated Exposure
TWA	Time Weighted Average – generally referred to WES averaged over typical work day (usually 8 hours)
UEL	Upper Explosive Limit
UN Number	United Nations Number
WES	Workplace Exposure Standard - The airborne concentration of a biological or chemical agent to which a worker may be exposed during work hours (usually 8 hours, 5 days a week). The WES relates to exposure that has been measured by personal monitoring using procedures that gather air samples in the worker's breathing zone.

References

Data	Unless otherwise stated comes from the EPA HSNO chemical classification information database (CCID).
Controls	EPA notices, www.epa.govt.nz, Health and Safety at Work (Hazardous Substances) Regulations 2017, www.legislation.govt.nz
WES	The latest NZ Workplace Exposure Standards, published by WorkSafe NZ and available on their web site – www.worksafe.govt.nz.
Other References:	Suppliers SDS

Review

Date	**Reason for review**
March 2022	Not applicable – new SDS

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