RESENE THINNER No. 2 Resene Paints LTD

Version No: 1.2

Safety Data Sheet according to the Health and Safety at Work (Hazardous Substances) Regulations 2017

Issue Date: **22/03/2021**Print Date: **29/03/2021**L.GHS.NZL.EN

SECTION 1 Identification of the substance / mixture and of the company / undertaking

Product Identifier

Product name	RESENE THINNER No. 2
Chemical Name	naphtha petroleum, heavy, hydrotreated
Synonyms	
Proper shipping name	PAINT (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base) or PAINT RELATED MATERIAL (including paint thinning or reducing compound)
Other means of identification	Not Available

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

Relevant identified uses	9057
Relevant identified uses	9057

Details of the supplier of the safety data sheet

	•
Registered company name	Resene Paints LTD
Address	32-50 Vogel Street Wellington 5011 New Zealand
Telephone	+64 4 5770500
Fax	+64 4 5773327
Website	www.resene.co.nz
Email	advice@resene.co.nz

Emergency telephone number

Association / Organisation	NZ POISONS (24hr 7days)	CHEMWATCH EMERGENCY RESPONSE
Emergency telephone numbers	0800 764766	+61 2 9186 1132
Other emergency telephone numbers	Not Available	+64 800 700 112

Once connected and if the message is not in your prefered language then please dial ${\bf 01}$

SECTION 2 Hazards identification

Classification of the substance or mixture

Glassification of the substance of mixture		
Classification ^[1]	Flammable Liquid Category 3, Specific target organ toxicity - repeated exposure Category 2, Acute Aquatic Hazard Category 3, Skin Corrosion/Irritation Category 2, Eye Irritation Category 2, Aspiration Hazard Category 1, Chronic Aquatic Hazard Category 3	
Legend:	1. Classified by Chemwatch; 2. Classification drawn from CCID EPA NZ; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI	
Determined by Chemwatch using GHS/HSNO criteria	3.1C, 6.1E (aspiration), 6.3A, 6.4A, 6.9B, 9.1C, 9.1D	

Label elements

Hazard pictogram(s)







Signal word Danger

Hazard statement(s)

H226	Flammable liquid and vapour.
H373	May cause damage to organs through prolonged or repeated exposure. (Oral, Dermal, Inhalation)
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H304	May be fatal if swallowed and enters airways.
H412	Harmful to aquatic life with long lasting effects.

 Version No: 1.2
 Page 2 of 8
 Issue Date: 22/03/2021

 Print Date: 29/03/2021
 Print Date: 29/03/2021

RESENE THINNER No. 2

Wear protective gloves/protective clothing/eye protection/face protection.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P233 Keep container tightly closed. P260 Do not breathe mist/vapours/spray. P240 Ground and bond container and receiving equipment. P241 $\label{thm:linear} Use\ explosion-proof\ electrical/ventilating/lighting/intrinsically\ safe\ equipment.$ P242 Use non-sparking tools. P243 Take action to prevent static discharges. P273 Avoid release to the environment.

Precautionary statement(s) Response

P280

Precautionary statement(s) Storage

P403+P235	Store in a well-ventilated place. Keep cool.	
P405	Store locked up.	

Precautionary statement(s) Disposal

P501 Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.

SECTION 3 Composition / information on ingredients

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
64742-48-9	>90	naphtha petroleum, heavy, hydrotreated

SECTION 4 First aid measures

Description of first aid measures

Eye Contact	If this product comes in contact with the eyes: Nash out immediately with fresh running water. Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. Seek medical attention without delay; if pain persists or recurs seek medical attention. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	If skin contact occurs: Immediately remove all contaminated clothing, including footwear. Flush skin and hair with running water (and soap if available). Seek medical attention in event of irritation.
Inhalation	If fumes, aerosols or combustion products are inhaled remove from contaminated area. Other measures are usually unnecessary.
Ingestion	 If spontaneous vomiting appears imminent or occurs, hold patient's head down, lower than their hips to help avoid possible aspiration of vomitus. If swallowed do NOT induce vomiting. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. Observe the patient carefully. Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. Seek medical advice.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

Version No: **1.2** Page **3** of **8** Issue Date: **22/03/2021**

RESENE THINNER No. 2

Print Date: 29/03/2021

SECTION 5 Firefighting measures

Extinguishing media

Foam.

Special hazards arising from the substrate or mixture

Fire Incompatibility	Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result
----------------------	--

Advice for firefighters	
Fire Fighting	▶ Alert Fire Brigade and tell them location and nature of hazard.
Fire/Explosion Hazard	► Liquid and vapour are flammable. Combustion products include: carbon monoxide (CO) carbon dioxide (CO2) other pyrolysis products typical of burning organic material.

SECTION 6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

See section 8

Environmental precautions

See section 12

Methods and material for containment and cleaning up

Minor Spills	Remove all ignition sources. Contain spill with inert non- combustible absorbent then place in suitable, labelled container for waste disposal. Wipe up. Clean area with large quantity of water to complete clean- up.
Major Spills	Remove all ignition sources. Clear area of personnel and move upwind. Wear appropriate personnel protective equipment and clothing to prevent exposure. Avoid breathing in mists or vapours and skin or eyes contact. Extinguish or remove all sources of ignition and stop leak if safe to do so. Increase ventilation. Evacuate all unprotected personnel. If possible contain the spill. Place inert absorbent, non- combustible material onto spillage. Use clean non- sparking tools to collect the material and place into suitable labelled containers for subsequent recycling or disposal. Dispose of waste according to the applicable local and national regulations. If contamination of sewers or waterways occurs inform the local water and waste management authority.

Personal Protective Equipment advice is contained in Section 8 of the SDS.

SECTION 7 Handling and storage

Precautions	for	safe	handling
1 ICCUUUIOII3		Juic	nanamig

Safe handling	Even with proper grounding and bonding, this material can still accumulate an electrostatic charge. Containers, even those that have been emptied, may contain explosive vapours. Electrostatic discharge may be generated during pumping - this may result in fire. Avoid unnecessary personal contact, including inhalation. DO NOT allow clothing wet with material to stay in contact with skin
Other information	Store in original containers in approved flammable liquid storage area.

Conditions for safe storage, including any incompatibilities

Suitable container	▶ Packing as supplied by manufacturer.
Storage incompatibility	► Avoid reaction with oxidising agents

SECTION 8 Exposure controls / personal protection

Control parameters

Occupational Exposure Limits (OEL)

INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
New Zealand Workplace Exposure Standards (WES)	naphtha petroleum, heavy, hydrotreated	Oil mist, mineral	5 mg/m3	10 mg/m3	Not Available	om-Sampled by a method that does not collect vapour.

Emergency Limits

Ingredient	TEEL-1	TEEL-2	TEEL-3
naphtha petroleum, heavy, hydrotreated	350 mg/m3	1,800 mg/m3	40,000 mg/m3

 Version No: 1.2
 Page 4 of 8
 Issue Date: 22/03/2021

 Print Date: 29/03/2021
 Print Date: 29/03/2021

RESENE THINNER No. 2

Ingredient	Original IDLH	Revised IDLH
naphtha petroleum, heavy, hydrotreated	2,500 mg/m3	Not Available

MATERIAL DATA

Sensory irritants are chemicals that produce temporary and undesirable side-effects on the eyes, nose or throat.

Odour threshold: 0.25 ppm.

NOTE P: The classification as a carcinogen need not apply if it can be shown that the substance contains less than 0.01% w/w benzene (EINECS No 200-753-7).

Exposure controls

Exposure controls	
Appropriate engineering controls	Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard.
Personal protection	
Eye and face protection	► Safety glasses with side shields.
Skin protection	See Hand protection below
Hands/feet protection	Wear chemical protective gloves, e.g. PVC. The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer.
Body protection	See Other protection below
Other protection	 Overalls. Some plastic personal protective equipment (PPE) (e.g. gloves, aprons, overshoes) are not recommended as they may produce static electricity.

Respiratory protection

Type A Filter of sufficient capacity.

- ▶ Cartridge respirators should never be used for emergency ingress or in areas of unknown vapour concentrations or oxygen content.
- The wearer must be warned to leave the contaminated area immediately on detecting any odours through the respirator. The odour may indicate that the mask is not functioning properly, that the vapour concentration is too high, or that the mask is not properly fitted. Because of these limitations, only restricted use of cartridge respirators is considered appropriate.
- Cartridge performance is affected by humidity. Cartridges should be changed after 2 hr of continuous use unless it is determined that the humidity is less than 75%, in which case, cartridges can be used for 4 hr. Used cartridges should be discarded daily, regardless of the length of time used

SECTION 9 Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Clear, colourless liquid		
Physical state	Liquid	Relative density (Agua= 1)	0.77
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	>200
pH (as supplied)	Not Available	Decomposition temperature	Not Available
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	1.23
Initial boiling point and boiling range (°C)	147-199	Molecular weight (g/mol)	Not Available
Flash point (°C)	40	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Flammable.	Oxidising properties	Not Available
Upper Explosive Limit (%)	7.0	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	0.6	Volatile Component (%vol)	100
Vapour pressure (kPa)	0.21	Gas group	Not Available
Solubility in water	Immiscible	pH as a solution (1%)	Not Available
Vapour density (Air = 1)	>1	VOC g/L	770

SECTION 10 Stability and reactivity

Reactivity	See section 7
Chemical stability	▶ stable.

Version No: 1.2 Page 5 of 8 Issue Date: 22/03/2021 Print Date: 29/03/2021

RESENE THINNER No. 2

Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

SECTION 11 Toxicological information

ormation on toxicological e	ffects			
Inhaled	Inhalation hazard is increased at higher temperatures. Inhalation of vapours may cause drowsiness and dizziness.			
	High inhaled concentrations of mixed hydrocarbons is Some aliphatic hydrocarbons produce axonal neurop		sis characterised by nausea, vomiting and lightheadedness.	
Ingestion	Swallowing of the liquid may cause aspiration of vomit into the lungs with the risk of haemorrhaging, pulmonary oedema, progressing to chemical pneumonitis; serious consequences may result. Many aliphatic hydrocarbons create a burning sensation because they are irritating to the GI mucosa. Ingestion of petroleum hydrocarbons may produce irritation of the pharynx, oesophagus, stomach and small intestine with oedema and mucosal ulceration resulting; symptoms include a burning sensation in the mouth and throat.			
Skin Contact	Evidence exists, or practical experience predicts, that the material either produces inflammation of the skin in a substantial number of individuals following direct contact, and/or produces significant inflammation when applied to the healthy intact skin of animals, for up to four hours, such inflammation being present twenty-four hours or more after the end of the exposure period. The material may accentuate any pre-existing dermatitis condition Dermally, isoparaffins have produced slight to moderate irritation in animals and humans under occluded patch conditions where evaporation cannot freely occur. Open cuts, abraded or irritated skin should not be exposed to this material Entry into the blood-stream through, for example, cuts, abrasions, puncture wounds or lesions, may produce systemic injury with harmful effects. The liquid may be miscible with fats or oils and may degrease the skin, producing a skin reaction described as non-allergic contact dermatitis.			
Еуе	Evidence exists, or practical experience predicts, that the material may cause eye irritation in a substantial number of individuals and/or may produce significant ocular lesions which are present twenty-four hours or more after instillation into the eye(s) of experimental animals. Instillation of isoparaffins into rabbit eyes produces only slight irritation. Petroleum hydrocarbons may produce pain after direct contact with the eyes.			
Chronic	Repeated or prolonged exposure to mixed hydrocarbons may produce narcosis with dizziness, weakness, irritability, concentration and/or memory loss, tremor in the fingers and tongue, vertigo, olfactory disorders, constriction of visual field, paraesthesias of the extremities, weight loss and anaemia and degenerative changes in the liver and kidney. Repeated application of mildly hydrotreated oils (principally paraffinic), to mouse skin, induced skin tumours; no tumours were induced with severely hydrotreated oils. Steam-cracked residues produced an increased incidence of skin tumours after repeated applications to the skin of mice. Prolonged or repeated skin contact may cause drying with cracking, irritation and possible dermatitis following. Chronic solvent inhalation exposures may result in nervous system impairment and liver and blood changes.			
	TOVIOLEY		IDDITATION	
RESENE THINNER No. 2	TOXICITY Not Available		IRRITATION Not Available	
	TOXICITY	IDDIT	ATION	
nambaha mataalan m	Dermal (rabbit) LD50: >1900 mg/kg ^[1]		to adverse effect observed (not irritating) ^[1]	
naphtha petroleum, heavy, hydrotreated	Inhalation(Rat) LC50; >4.42 mg/L4 ^[1]		adverse effect observed (irritating) ^[1]	
	Oral(Rat) LD50; >4500 mg/kg ^[1]			
Legend:	Value obtained from Europe ECHA Registered Su specified data extracted from RTECS - Register of Ti		exicity 2.* Value obtained from manufacturer's SDS. Unless otherwise	

specified data extracted from RTECS - Register of Toxic Effect of chemical Substances

RESENE THINNER No. 2 & NAPHTHA PETROLEUM, HEAVY, HYDROTREATED

Studies indicate that normal, branched and cyclic paraffins are absorbed from the mammalian gastrointestinal tract and that the absorption of n-paraffins is inversely proportional to the carbon chain length, with little absorption above C30.

Altered mental state, drowsiness, peripheral motor neuropathy, irreversible brain damage (so-called Petrol Sniffer's Encephalopathy), delirium, seizures, and sudden death have been reported from repeated overexposure to some hydrocarbon solvents, naphthas, and gasoline This product may contain benzene which is known to cause acute myeloid leukaemia and n-hexane which has been shown to metabolize to compounds which are neuropathic.

This product contains toluene.

Acute Toxicity	×	Carcinogenicity	×
Skin Irritation/Corrosion	✓	Reproductivity	×
Serious Eye Damage/Irritation	✓	STOT - Single Exposure	×

 Version No: 1.2
 Page 6 of 8
 Issue Date: 22/03/2021

 Print Date: 29/03/2021
 Print Date: 29/03/2021

RESENE THINNER No. 2

Respiratory or Skin sensitisation

Mutagenicity

X

STOT - Repeated Exposure

Aspiration Hazard

Legend: X − Data either not available or does not fill the criteria for classification

✓ − Data available to make classification

SECTION 12 Ecological information

Toxicity

					1		
RESENE THINNER No. 2	Endpoint	Test Duration (hr)		Species	Value	Sou	rce
	Not Available	Not Available		Not Available	Not Available	Not A	Available
naphtha petroleum, heavy, hydrotreated	Endpoint	Test Duration (hr)	Sp	Species		Value	Source
	EC50(ECx)	96	Alg	ae or other aquatic plants		64mg/l	2
	EC50	96	Alg	ae or other aquatic plants		64mg/l	2
Legend:	Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite						

V3.12 (QSAR) - Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Do NOT allow product to come in contact with surface waters or to intertidal areas below the mean high water mark.

When spilled this product may act as a typical oil, causing a film, sheen, emulsion or sludge at or beneath the surface of the body of water.

When released in the environment, alkanes don't undergo rapid biodegradation, because they have no functional groups (like hydroxyl or carbonyl) that are needed by most organisms in order to metabolize the compound.

Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data

For petroleum distillates:

Environmental fate:

When petroleum substances are released into the environment, four major fate processes will take place: dissolution in water, volatilization, biodegradation and adsorption.

For petroleum derivatives

Chemical analysis for all individual compounds in a petroleum bulk product released to the environment is generally unrealistic due to the complexity of these mixtures and the laboratory expense.

DO NOT discharge into sewer or waterways.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air	
	No Data available for all ingredients	No Data available for all ingredients	

Bioaccumulative potential

Ingredient	Bioaccumulation
	No Data available for all ingredients

Mobility in soil

Ingredient	Mobility
	No Data available for all ingredients

SECTION 13 Disposal considerations

Waste treatment methods

Legislation addressing waste disposal requirements may differ by country, state and/ or territory.

▶ DO NOT allow wash water from cleaning or process equipment to enter drains

Product / Packaging disposal

Recycle wherever possible.

Consult manufacturer for recycling option.

Resene Paintwise accepts residual unwanted paint and packaging. See Resene website for Paintwise information. Or contact a Local Authority for the disposal information. Do not discharge the substance into the environment.

Ensure that the hazardous substance is disposed in accordance with the Hazardous Substances (Disposal) Notice 2017

Disposal Requirements

Packages that have been in direct contact with the hazardous substance must be only disposed if the hazardous substance was appropriately removed and cleaned out from the package.

SECTION 14 Transport information

Labels Required



Version No: **1.2** Page **7** of **8** Issue Date: **22/03/2021**

RESENE THINNER No. 2

Marine Pollutant	NO
HAZCHEM	•3Y

Land transport (UN)

UN number	1263		
UN proper shipping name	PAINT (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base) or PAINT RELATED MATERIAL (including paint thinning or reducing compound)		
Transport hazard class(es)	Class 3 Subrisk Not Applicable		
Packing group	III.		
Environmental hazard	Not Applicable		
Special precautions for user	Special provisions 163; 223; 367 Limited quantity 5 L		

Air transport (ICAO-IATA / DGR)

UN number	1263			
UN proper shipping name	Paint (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base); Paint related material (including paint thinning or reducing compounds)			
Transport hazard class(es)	ICAO/IATA Class ICAO / IATA Subrisk ERG Code	3 Not Applicable 3L		
Packing group				
Environmental hazard	Not Applicable			
	Special provisions		A3 A72 A192	
	Cargo Only Packing Instructions		366	
	Cargo Only Maximum Qty / Pack		220 L	
Special precautions for user	Passenger and Cargo Packing Instructions		355	
	Passenger and Cargo Maximum Qty / Pack		60 L	
	Passenger and Cargo Limited Quantity Packing Instructions		Y344	
	Passenger and Cargo Limited Maximum Qty / Pack		10 L	

Sea transport (IMDG-Code / GGVSee)

UN number	1263		
UN proper shipping name	PAINT (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base) or PAINT RELATED MATERIAL (including paint thinning or reducing compound)		
Transport hazard class(es)	IMDG Class 3 IMDG Subrisk No	ot Applicable	
Packing group	III		
Environmental hazard	Not Applicable		
Special precautions for user	EMS Number Special provisions Limited Quantities	F-E , S-E 163 223 367 955 5 L	

Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

	The state of the s	
Product name	Group	
naphtha petroleum, heavy, hydrotreated	Not Available	

Transport in bulk in accordance with the ICG Code

Product name	Ship Type
naphtha petroleum, heavy, hydrotreated	Not Available

SECTION 15 Regulatory information

Version No: 1.2 Page 8 of 8 Issue Date: 22/03/2021

RESENE THINNER No. 2

Print Date: 29/03/2021

This substance is to be managed using the conditions specified in an applicable Group Standard

HSR Number	Group Standard	
HSR002650	Solvents (Flammable) Group Standard 2017	
naphtha petroleum, heavy, hydrotreated is found on the following regulatory lists		

Chemical Footprint Project - Chemicals of High Concern List International Agency for Research on Cancer (IARC) - Agents Classified by the IARC

Monographs

New Zealand Approved Hazardous Substances with controls

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification

New Zealand Inventory of Chemicals (NZIoC)

New Zealand Workplace Exposure Standards (WES)

Hazardous Substance Location

Subject to the Health and Safety at Work (Hazardous Substances) Regulations 2017.

Hazard Class	Quantity (Closed Containers)	Quantity (Open Containers)
3.1C	500 L in containers more than 5 L	250 L
3.1C	1 500 L in containers up to and including 5 L	250 L

Certified Handler

Subject to Part 4 of the Health and Safety at Work (Hazardous Substances) Regulations 2017.

Class of substance	Quantities
Not Applicable	Not Applicable

Refer Group Standards for further information

Maximum quantities of certain hazardous substances permitted on passenger service vehicles

Subject to Regulation 13.14 of the Health and Safety at Work (Hazardous Substances) Regulations 2017.

Hazard Class	Gas (aggregate water capacity in mL)	Liquid (L)	Solid (kg)	Maximum quantity per package for each classification
3.1C or 3.1D				10 L

Tracking Requirements

Not Applicable

National Inventory Status

National Inventory	Status	
Australia - AIIC / Australia Non-Industrial Use	Yes	
New Zealand - NZIoC	Yes	
Legend:	Yes = All CAS declared ingredients are on the inventory No = One or more of the CAS listed ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets)	

SECTION 16 Other information

Revision Date	22/03/2021
Initial Date	16/09/2014

SDS Version Summary

Version	Issue Date	Sections Updated
0.2.1.1.1	22/03/2021	Acute Health (inhaled), Acute Health (skin), Acute Health (swallowed), Classification, First Aid (swallowed), Physical Properties

Other information

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment.

Definitions and abbreviations

PC-TWA: Permissible Concentration-Time Weighted Average

PC-STEL: Permissible Concentration-Short Term Exposure Limit

IARC: International Agency for Research on Cancer ACGIH: American Conference of Governmental Industrial Hygienists

STEL: Short Term Exposure Limit

TEEL: Temporary Emergency Exposure Limit $_{\circ}$

IDLH: Immediately Dangerous to Life or Health Concentrations

OSF: Odour Safety Factor

NOAEL :No Observed Adverse Effect Level

LOAEL: Lowest Observed Adverse Effect Level

TLV: Threshold Limit Value

LOD: Limit Of Detection OTV: Odour Threshold Value

BCF: BioConcentration Factors

BEI: Biological Exposure Index

Powered by AuthorITe, from Chemwatch.