

1 Identification of substance

· **Product details**

· **Trade name:** SOLARAY UV Headlight Repair Aerosol

· **Article number:** 21013

· **Application of the substance / the preparation** Aerosol Clearcoat

· **Manufacturer/Supplier:**

SEM Products Inc.
651 Michael Wylie Dr.
Charlotte, NC 28217
(704)522-1006

· **Information department:**

labsupport@sem.ws : SEM Products 651 Michael Wylie Dr. Charlotte, NC 28217 : phone 1-704-522-1006, M - TH 7am - 4pm EDT















· **Emergency information:** 24 HR EMERGENCY CHEMTREC 1-800-424-9300

2 Composition/Data on components

· **Chemical characterization**

· **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

115-10-6	dimethyl ether	30 - 40%
	Danger:  2.2/1	
	Warning:  2.5/L	
123-86-4	n-butyl acetate	13 - 30%
	Warning:  2.6/3;  3.8/3	
	Acrylated Urethane resin	13 - 30%
	Warning:  3.2/2, 3.3/2A, 3.8/3	
67-64-1	acetone	7 - 10%
	Danger:  2.6/2	
	Warning:  3.3/2A, 3.8/3	
108-88-3	toluene	1.5 - 5%
	Danger:  2.6/2;  3.10/1, 3.7/2	
	Warning:  3.2/2, 3.3/2A, 3.8/3	
108-10-1	4-methylpentan-2-one	1.5 - 5%
	Danger:  2.6/2	
	Warning:  3.1.1/4, 3.3/2A, 3.8/3	
13048-33-4	hexamethylene diacrylate	1.5 - 5%
	Warning:  3.2/2, 3.3/2A, 3.4.S/1	
106917-31-1	1-Acetyl-4-(3-dodecyl-2,2-dioxo-1-pyrrolidinyl)-2,2,6,6-tetramethyl piperidine	≤1%
	Warning:  3.2/2, 3.3/2A, 3.4.S/1, 3.8/3	

3 Hazards identification

· **Hazard description:**



Irritant
Extremely flammable

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USA

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· **Information pertaining to particular dangers for man and environment:**

The product has to be labelled due to the calculation procedure of international guidelines.

Warning! Pressurized container.

Has a narcotizing effect.

Extremely flammable.

Irritating to eyes, respiratory system and skin.

May cause sensitisation by skin contact.

Vapours may cause drowsiness and dizziness.

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.

77.9 % by mass of the contents are flammable

Keep out of the reach of children.

· **Classification system:**

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

· **NFPA ratings (scale 0 - 4)**



Health = 2

Fire = 4

Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**



Health = 2

Fire = 4

Reactivity = 0

· **GHS label elements**



Danger

2.2/1 - Extremely flammable gas.

2.3/1 - Extremely flammable aerosol.



Warning

3.2/2 - Causes skin irritation.

3.3/2A - Causes serious eye irritation.

3.4/1 - May cause an allergic skin reaction.

3.8/3 - May cause respiratory irritation. May cause drowsiness or dizziness.

· **Prevention:**

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Do not spray on an open flame or other ignition source.

Pressurized container: Do not pierce or burn, even after use.

Avoid breathing dust/fume/gas/mist/vapours/spray.

Wash thoroughly after handling.

Use only outdoors or in a well-ventilated area.

Contaminated work clothing should not be allowed out of the workplace.

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

· **Response:**

IF ON SKIN: Wash with plenty of soap and water.

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IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Call a POISON CENTER or doctor/physician if you feel unwell.

Specific treatment (see label).

If skin irritation occurs: Get medical advice/attention.

If skin irritation or rash occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

Take off contaminated clothing and wash before reuse.

Wash contaminated clothing before reuse.

Leaking gas fire: Do not extinguish, unless leak can be stopped safely.

Eliminate all ignition sources if safe to do so.

· Storage:

Store in a well-ventilated place.

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

Store locked up.

Protect from sunlight. Do not expose to temperatures exceeding 50°C/ 122°F.

· Disposal:

Dispose of contents/container in accordance with local/regional/national/international regulations.

4 First aid measures

· After inhalation:

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

· After skin contact: Immediately wash with water and soap and rinse thoroughly.

· After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

· After swallowing: If symptoms persist consult doctor.

5 Fire fighting measures

· Suitable extinguishing agents: CO₂, sand, extinguishing powder. Do not use water.

· For safety reasons unsuitable extinguishing agents: Water with full jet

· Protective equipment: No special measures required.

6 Accidental release measures

· Person-related safety precautions: Wear protective equipment. Keep unprotected persons away.

· Measures for environmental protection: Do not allow to enter sewers/ surface or ground water.

· Measures for cleaning/collecting:

Ensure adequate ventilation.

Do not flush with water or aqueous cleansing agents

7 Handling and storage

· Handling:

· Information for safe handling:

Ensure good ventilation/exhaustion at the workplace.

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Open and handle receptacle with care.

· **Information about protection against explosions and fires:**

Do not spray on a naked flame or any incandescent material.

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.

· **Storage:**

· **Requirements to be met by storerooms and receptacles:**

Store in a cool location.

Observe official regulations on storing packagings with pressurized containers.

· **Information about storage in one common storage facility:** Not required.

· **Further information about storage conditions:**

Keep receptacle tightly sealed.

Do not gas tight seal receptacle.

Store in cool, dry conditions in well sealed receptacles.

Protect from heat and direct sunlight.

8 Exposure controls and personal protection

· **Additional information about design of technical systems:** No further data; see item 7.

· **Components with limit values that require monitoring at the workplace:**

115-10-6 dimethyl ether

WEEL 1000 ppm

123-86-4 n-butyl acetate

PEL 710 mg/m³, 150 ppm

REL Short-term value: 950 mg/m³, 200 ppm

Long-term value: 710 mg/m³, 150 ppm

TLV Short-term value: 950 mg/m³, 200 ppm

Long-term value: 713 mg/m³, 150 ppm

67-64-1 acetone

PEL 2400 mg/m³, 1000 ppm

REL 590 mg/m³, 250 ppm

TLV Short-term value: 1782 mg/m³, 750 ppm

Long-term value: 1188 mg/m³, 500 ppm

BEI

108-88-3 toluene

PEL Short-term value: C 300; 500* ppm

Long-term value: 200 ppm

*10-min peak per 8-hr shift

REL Short-term value: 560 mg/m³, 150 ppm

Long-term value: 375 mg/m³, 100 ppm

TLV 75 mg/m³, 20 ppm

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108-10-1 4-methylpentan-2-one

PEL	410 mg/m ³ , 100 ppm
REL	Short-term value: 300 mg/m ³ , 75 ppm Long-term value: 205 mg/m ³ , 50 ppm
TLV	Short-term value: 307 mg/m ³ , 75 ppm Long-term value: (205) NIC-123 mg/m ³ , (50) NIC-30 ppm BEI;NIC-A3

13048-33-4 hexamethylene diacrylate

WEEL	1 mg/m ³
DSEN	

· **Additional information:** The lists that were valid during the creation were used as basis.

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

· **Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

Use suitable respiratory protective device in case of insufficient ventilation.

· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**



Tightly sealed goggles

9 Physical and chemical properties

· **General Information**

Form: Aerosol

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Color:	According to product specification
Odor:	Characteristic
· Change in condition Melting point/Melting range: Undetermined. Boiling point/Boiling range: < -18°C (< -0°F)	
· Flash point:	< -18°C (< -0°F)
· Ignition temperature:	235°C (455°F)
· Auto igniting:	Product is not selfigniting.
· Danger of explosion:	In use, may form flammable/explosive vapour-air mixture.
· Explosion limits:	
Lower:	1.2 Vol %
Upper:	18.6 Vol %
· Vapor pressure at 20°C (68°F):	5200 hPa (3900 mm Hg)
· Density at 20°C (68°F):	0.814 g/cm ³
· Solubility in / Miscibility with Water:	Not miscible or difficult to mix.
· Solvent content:	
Organic solvents:	77.9 %
VOC content:	68.0 % 617.1 g/l / 5.15 lb/gal
· Solids content:	22.1 %

10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Dangerous reactions** No dangerous reactions known.
- **Dangerous products of decomposition:** No dangerous decomposition products known.

11 Toxicological information

- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

108-88-3 toluene

Oral	LD50	5000 mg/kg (rat)
Dermal	LD50	12124 mg/kg (rabbit)
Inhalative	LC50/4 h	5320 mg/l (mouse)

- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.
- **Sensitization:** Sensitization possible through skin contact.
- **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:

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Printing date 08/05/2008

Reviewed on 08/05/2008

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Irritant

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12 Ecological information

· **General notes:**

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

13 Disposal considerations

· **Product:**

· **Recommendation:**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

· **Uncleaned packagings:**

· **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

· **DOT regulations:**



- **Hazard class:** 2.1
- **Identification number:** UN1950
- **Packing group:** -
- **Proper shipping name (technical name):** AEROSOLS, flammable
- **Label:** 2.1

· **Land transport TDG (Canada) and ADR/RID (Europe):**



- **Hazard class:** 2 5F Gases
- **UN-Number:** 1950
- **Packaging group:** -
- **Label:** 2.1
- **Description of goods:** 1950 AEROSOLS

· **Maritime transport IMDG:**



- **IMDG Class:** 2.1
- **UN Number:** 1950
- **Label:** 2.1

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Trade name: SOLARAY UV Headlight Repair Aerosol

(Contd. of page 7)

· **Packaging group:** -
· **EMS Number:** F-D,S-U
· **Marine pollutant:** No
· **Propper shipping name:** AEROSOLS

· **Air transport ICAO-TI and IATA-DGR:**



· **ICAO/IATA Class:** 2.1
· **UN/ID Number:** 1950
· **Label** 2.1
· **Packaging group:** -
· **Propper shipping name:** AEROSOLS, flammable

· **UN "Model Regulation":** UN1950, AEROSOLS, 2.1

15 Regulations

· **Sara**

· **Section 355 (extremely hazardous substances):**

None of the ingredient is listed.

· **Section 313 (Specific toxic chemical listings):**

108-88-3 toluene

108-10-1 4-methylpentan-2-one

1330-20-7 xylene

· **TSCA (Toxic Substances Control Act):**

115-10-6 dimethyl ether

123-86-4 n-butyl acetate

67-64-1 acetone

108-88-3 toluene

108-10-1 4-methylpentan-2-one

13048-33-4 hexamethylene diacrylate

162881-26-7 phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide

947-19-3 1-Hydroxycyclohexyl phenyl ketone

106917-31-1 1-Acetyl-4-(3-dodecyl-2-2-dioxo-1-pyrrolidinyl)-2,2,6,6-tetramethyl piperidine

1330-20-7 xylene

· **Proposition 65**

· **Chemicals known to cause cancer:**

1330-20-7 xylene

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

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· **Chemicals known to cause developmental toxicity:**

108-88-3	toluene
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· **Cancerogenity categories**

· **EPA (Environmental Protection Agency)**

67-64-1	acetone	I
108-88-3	toluene	II
108-10-1	4-methylpentan-2-one	I
1330-20-7	xylene	I

· **IARC (International Agency for Research on Cancer)**

108-88-3	toluene	3
1330-20-7	xylene	3

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**

67-64-1	acetone	A4
108-88-3	toluene	A4
1330-20-7	xylene	A4

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

· **Product related hazard informations:**

The product has been classified and marked in accordance with directives on hazardous materials.

· **Hazard symbols:**

Irritant
Extremely flammable

· **Hazard-determining components of labelling:**

hexamethylene diacrylate

· **Risk phrases:**

Extremely flammable.
Irritating to eyes, respiratory system and skin.
May cause sensitisation by skin contact.
Vapours may cause drowsiness and dizziness.

· **Safety phrases:**

Do not breathe gas/fumes/vapour/spray (appropriate wording to be specified by the manufacturer).
Avoid contact with skin and eyes.
Wear suitable gloves.
Use only in well-ventilated areas.
This material and its container must be disposed of as hazardous waste.

· **Special labeling of certain preparations:**

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.
77.9 % by mass of the contents are flammable

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Printing date 08/05/2008

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Trade name: SOLARAY UV Headlight Repair Aerosol

Keep out of the reach of children.

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16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing MSDS:** Environment protection department.

· **Contact:** Steve Gaver

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises Dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Reglement internationale concernent le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

ACGIH: American Conference of Governmental Industrial Hygienists

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

USA