

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

3 Hazards identification

· **Hazard description:**



Irritant
Extremely flammable

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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/gl
· 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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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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- **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	
· 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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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