1 Identification

- · Product identifier
- · Trade name: 77721,77724 XXX Adhesion Promoter
- · Article number: 77721, 77724
- · Application of the substance / the mixture Coating
- · Details of the supplier of the safety data sheet
- · Manufacturer/Supplier: SEM Products Inc. 1685 Overview Drive Rock Hill, SC 29730 803 207 8225
- · Information department:

cust_care@semproducts.com: SEM Products,Inc. 1685 Overview Dr. Rock Hill, SC 29730: phone 1-800-831-1122, M - TH 7am - 4pm EDT

· Emergency telephone number: CHEMTREC 1-800-424-9300

2 Hazard identification

· Classification of the substance or mixture



GHS02 Flame

Flammable Liquids - Category 2

H225 Highly flammable liquid and vapour.



GHS08 Health hazard

Reproductive Toxicity - Category 2 H361 Suspected of damaging fertility or the unborn child.

Specific Target Organ Toxicity - Repeated Exposure -

H372 Causes damage to the central nervous system Category 1 through prolonged or repeated exposure.

H304 May be fatal if swallowed and enters airways. Aspiration Hazard - Category 1



GHS07

Skin Irritation - Category 2

Eye Irritation - Category 2A

Specific Target Organ Toxicity - Single Exposure -

Category 3

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

· Label elements

- · GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).
- · Hazard pictograms







GHS02

GHS07

(Contd. on page 2)



Trade name: 77721,77724 XXX Adhesion Promoter

(Contd. of page 1)

· Signal word Danger

· Hazard-determining components of labeling:

toluene

Solvent naphtha (petroleum), medium aliph.

acetone

n-butyl acetate

· Hazard statements

H225 Highly flammable liquid and vapour.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H361 Suspected of damaging fertility or the unborn child.

H336 May cause drowsiness or dizziness.

H372 Causes damage to the central nervous system through prolonged or repeated exposure.

H304 May be fatal if swallowed and enters airways.

· Precautionary statements

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P240	Ground and bond container and receiving equipment.
P241	Use explosion-proof [electrical/ventilating/lighting] equipment.

P242 Use non-sparking tools.

P243 Take actions to prevent static discharges.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P264 Wash thoroughly after handling.

P270 Do not eat, drink or smoke when using this product. P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301+P310 If swallowed: Immediately call a poison center/doctor.

P321 Specific treatment (see on this label).

P331 Do NOT induce vomiting.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water

[or shower].

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.

P308+P313 IF exposed or concerned: Get medical advice/attention.
P312 Call a poison center/doctor if you feel unwell.
P314 Get medical advice/attention if you feel unwell.
P362+P364 Take off contaminated clothing and wash it before reuse.
P332+P313 If skin irritation occurs: Get medical advice/attention.
P337+P313 If eye irritation persists: Get medical advice/attention.

P370+P378 In case of fire: Use for extinction: CO2, powder or water spray. P403+P233 Store in a well-ventilated place. Keep container tightly closed.

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

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international

regulations.

(Contd. on page 3)

(Contd. of page 2)



Printing date 03/21/2018 Reviewed on 06/20/2017

Trade name: 77721,77724 XXX Adhesion Promoter

· Classification system:

· NFPA ratings (scale 0 - 4)



Health = 2 Fire = 3Reactivity = 0

· HMIS-ratings (scale 0 - 4)



Health = 2Fire = 3

REACTIVITY 0 Reactivity = 0

*

3 Composition/Information on ingredients

· Chemical characterization: Mixtures

· Description:

Mixture: consisting of the following components.

Weight percentages

· Dangerous components:				
64742-88-7	Solvent naphtha (petroleum), medium aliph.	15-40% w/w		
108-88-3	toluene	15-40% w/w		
67-64-1	acetone	10-30% w/w		
123-86-4	n-butyl acetate	≥10-≤13% w/w		

*

4 First aid measures

- · Description of first aid measures
- · After inhalation: 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.
- · Information for doctor:
- · Most important symptoms and effects, both acute and delayed No further relevant information available.
- $\cdot \textit{Indication of any immediate medical attention and special treatment needed}$

No further relevant information available.

*

5 Firefighting measures

- · Extinguishing media
- · Suitable extinguishing agents:

CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

- · For safety reasons unsuitable extinguishing agents: Water with full jet
- · Special hazards arising from the substance or mixture No further relevant information available.

(Contd. on page 4)

SEM

Printing date 03/21/2018 Reviewed on 06/20/2017

Trade name: 77721,77724 XXX Adhesion Promoter

(Contd. of page 3)

· Advice for firefighters

· Protective equipment: No special measures required.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

- Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- · Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

· Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage

- · Handling:
- · Precautions for safe handling No special measures required.
- · Information about protection against explosions and fires:

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

- · Conditions for safe storage, including any incompatibilities
- · Storage:
- Requirements to be met by storerooms and receptacles: Store in a cool location.
- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions:

Keep receptacle tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

· Specific end use(s) No further relevant information available.

8 Exposure controls/ Personal protection

- · Additional information about design of technical systems: No further data; see item 7.
- · Control parameters
- · Components with limit values that require monitoring at the workplace:

108-88-3 toluene

EL Long-term value: 20 ppm

R

EV Long-term value: 20 ppm

67-64-1 acetone

EL Short-term value: 500 ppm Long-term value: 250 ppm

(Contd. on page 5)



Trade name: 77721,77724 XXX Adhesion Promoter

(Contd. of page 4)

EV Short-term value: 750 ppm Long-term value: 500 ppm

123-86-4 n-butyl acetate

EL Long-term value: 20 ppm

EV Short-term value: 950 mg/m³, 200 ppm Long-term value: 710 mg/m³, 150 ppm

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

- · Exposure controls
- · 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.

Store protective clothing separately.

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.

· Protection of hands:

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



Protective gloves

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

· 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 trough 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

- · Information on basic physical and chemical properties
- · General Information
- · Appearance:

Form: Liquid

Color: According to product specification

· Odor: Characteristic

(Contd. on page 6)

Trade name: 77721,77724 XXX Adhesion Promoter

	(Contd. of page
· Odor threshold:	Not determined.
· pH-value:	Not determined.
· Change in condition Melting point/Melting range: Boiling point/Boiling range:	Undetermined. 56°C
· Flash point:	-18 °C
· Flammability (solid, gaseous):	Not applicable.
· Ignition temperature:	265 °C
· Decomposition temperature:	Not determined.
· Auto igniting:	Product is not selfigniting.
· Danger of explosion:	In use, may form flammable/explosive vapour-air mixture.
· Explosion limits: Lower: Upper:	0.6 Vol % 13 Vol %
· Vapor pressure at 20 °C:	233 hPa
 Density at 20 °C: Relative density Vapor density Evaporation rate 	0.82 g/cm³ Not determined. Not determined. Not determined.
· Solubility in / Miscibility with Water:	Not miscible or difficult to mix.
$\cdot \textit{Partition coefficient (n-octanol/water)}.$	Not determined.
· Viscosity: Dynamic: Kinematic:	Not determined. Not determined.
· Solvent content: Organic solvents: VOC content:	95.4 % 76.53 % 780.7 g/l / 6.51 lb/gl
Solids content: Other information	4.5 % No further relevant information available.

10 Stability and reactivity

- · Reactivity No further relevant information available.
- · Chemical stability
- · Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.

(Contd. on page 7)

Trade name: 77721,77724 XXX Adhesion Promoter

(Contd. of page 6)

· Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:

· LD/LC50 values that are relevant for classification:					
64742-88-	64742-88-7 Solvent naphtha (petroleum), medium aliph.				
Oral	LD50	>6,500 mg/kg (rat)			
Dermal	<i>LD50</i>	>3,000 mg/kg (rab)			
Inhalative	LC50/4 h	>14 mg/l (rat)			
108-88-3 t	108-88-3 toluene				
Oral	LD50	5,000 mg/kg (rat)			
Dermal	<i>LD50</i>	12,124 mg/kg (rabbit)			
Inhalative	LC50/4 h	5,320 mg/l (mouse)			

- · Primary irritant effect:
- · on the skin: Irritant to skin and mucous membranes.
- · on the eye: Irritating effect.
- · Sensitization: No sensitizing effects known.
- · Additional toxicological information:

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

- · Carcinogenic categories
- · IARC (International Agency for Research on Cancer)

108-88-3 toluene

3

· NTP (National Toxicology Program)

None of the ingredients is listed.

12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- · Additional ecological information:
- · General notes:

Water hazard class 2 (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

- · Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.

(Contd. on page 8)

Trade name: 77721,77724 XXX Adhesion Promoter

· Other adverse effects No further relevant information available.

(Contd. of page 7)

13 Disposal considerations

- · Waste treatment methods
- · 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.

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		formation

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· DOT, TDG, IMDG, IATA UN1263

· UN proper shipping name

 \cdot **DOT** Paint

• TDG 1263 Paint, special provision 640D

· IMDG, IATA PAINT

· Transport hazard class(es)

 $\cdot DOT$



· Class 3 Flammable liquids

· Label

· TDG, IMDG, IATA



· Class 3 Flammable liquids

· Label 3

· Packing group

· DOT, TDG, IMDG, IATA II

· Environmental hazards:

· Marine pollutant: No

· Special precautions for user Warning: Flammable liquids

· EMS Number: F-E,S-E · Stowage Category B

· Transport in bulk according to Annex II of

MARPOL73/78 and the IBC Code Not applicable.

(Contd. on page 9)

Trade name: 77721,77724 XXX Adhesion Promoter

(Contd. of page 8) · Transport/Additional information: $\cdot DOT$ · Quantity limitations On passenger aircraft/rail: 5 L On cargo aircraft only: 60 L · Remarks ORM-D CFR49 173.150,156,306 $\cdot TDG$ · Excepted quantities (EQ) Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml · IMDG · Limited quantities (LQ) 5L· Excepted quantities (EQ) Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml · UN "Model Regulation": UN 1263 PAINT, SPECIAL PROVISION 640D, 3, II

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Sara
- · Section 355 (extremely hazardous substances):

None of the ingredient is listed.

· Section 313 (Specific toxic chemical listings):

108-88-3 toluene

78-93-3 butanone

· TSCA (Toxic Substances Control Act):

64742-88-7 Solvent naphtha (petroleum), medium aliph.

108-88-3 toluene

67-64-1 acetone

123-86-4 n-butyl acetate

78-93-3 butanone

· Canadian substance listings:

· Canadian	Domestic	Substances	List ((DSL)
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64742-88-7 Solvent naphtha (petroleum), medium aliph.

108-88-3 toluene

67-64-1 acetone

123-86-4 n-butyl acetate

78-93-3 butanone

· Canadian Ingredient Disclosure list (limit 0.1%)

None of the ingredients is listed.

· Canadian Ingredient Disclosure list (limit 1%)

108-88-3 toluene

(Contd. on page 10)



Trade name: 77721,77724 XXX Adhesion Promoter

(Contd. of page 9)

67-64-1 acetone

123-86-4 n-butyl acetate

- · GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).
- · Hazard pictograms







GHS02

GHS07

· Signal word Danger

· Hazard-determining components of labeling:

toluene

Solvent naphtha (petroleum), medium aliph.

acetone

n-butyl acetate

· Hazard statements

H225 Highly flammable liquid and vapour.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H361 Suspected of damaging fertility or the unborn child.

H336 May cause drowsiness or dizziness.

H372 Causes damage to the central nervous system through prolonged or repeated exposure.

H304 May be fatal if swallowed and enters airways.

· Precautionary statements

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No

P240 *Ground and bond container and receiving equipment.*

Use explosion-proof [electrical/ventilating/lighting] equipment. P241

P242 *Use non-sparking tools.*

P243 Take actions to prevent static discharges.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P264 Wash thoroughly after handling.

P270 Do not eat, drink or smoke when using this product. P271 Use only outdoors or in a well-ventilated area.

Wear protective gloves/protective clothing/eye protection/face protection. P280

P301+P310 If swallowed: Immediately call a poison center/doctor.

P321 Specific treatment (see on this label).

P331 Do NOT induce vomiting.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water

[or shower].

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.

P308+P313 IF exposed or concerned: Get medical advice/attention.

P312 *Call a poison center/doctor if you feel unwell.* P314 Get medical advice/attention if you feel unwell.

P362+P364 Take off contaminated clothing and wash it before reuse. P332+P313 If skin irritation occurs: Get medical advice/attention.

(Contd. on page 11)

Trade name: 77721,77724 XXX Adhesion Promoter

(Contd. of page 10)

P337+P313 If eye irritation persists: Get medical advice/attention.

P370+P378 *In case of fire: Use for extinction: CO2, powder or water spray.* P403+P233 Store in a well-ventilated place. Keep container tightly closed.

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

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international

regulations.

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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 SDS: Environment protection department.
- · Contact: Rita Joiner (rjoiner@semproducts.com)
- · Date of preparation / last revision 03/21/2018 / 6
- · Abbreviations and acronyms:

ICAO: International Civil Aviation Organisation

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

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

PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative

* * Data compared to the previous version altered.