

1 Identification

- **Product identifier**
- **Product Name:** REV 4.0 Add-Ons
- **Part Number:** ECS-A-046XP
- **Application of the substance / the mixture** Certified Reference Material
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
SPEX CertiPrep, LLC.
203 Norcross Ave, Metuchen,
NJ 08840 USA
- **Information department:** product safety department
- **Emergency telephone number:**
Emergency Phone Number (24 hours)
CHEMTREC (800-424-9300)
Outside US: 703-527-3887

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 Flame

Flam. Liq. 2 H225 Highly flammable liquid and vapor.



GHS06 Skull and crossbones

Acute Tox. 3 H331 Toxic if inhaled.



GHS08 Health hazard

Carc. 1B H350 May cause cancer.

Repr. 1 H360 May damage fertility or the unborn child.

STOT SE 1 H370 Causes damage to organs.

STOT RE 1 H372-H373 Causes damage to organs through prolonged or repeated exposure. May cause damage to the blood through prolonged or repeated exposure.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Acute Tox. 4 H312 Harmful in contact with skin.

Skin Sens. 1 H317 May cause an allergic skin reaction.

- **Label elements**

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

- **Hazard pictograms**



GHS02



GHS06



GHS07



GHS08

- **Signal word** Danger

- **Hazard-determining components of labeling:**

methanol

nitrobenzene

methacrylonitrile

chloroacetonitrile

- **Hazard statements**

H225 Highly flammable liquid and vapor.

H302+H312 Harmful if swallowed or in contact with skin.

(Contd. on page 2)

Safety Data Sheet
acc. to OSHA HCS

Printing date 09/29/2016

Reviewed on 09/29/2016

Product Name: REV 4.0 Add-Ons

(Contd. of page 1)

- H331 Toxic if inhaled.
 H317 May cause an allergic skin reaction.
 H350 May cause cancer.
 H360 May damage fertility or the unborn child.
 H370 Causes damage to organs.
 H372-H373 Causes damage to organs through prolonged or repeated exposure. May cause damage to the blood through prolonged or repeated exposure.

Precautionary statements

- Keep away from heat/sparks/open flames/hot surfaces. No smoking.
 Use explosion-proof electrical/ventilating/lighting/equipment.
 Do not breathe dust/fume/gas/mist/vapors/spray.
 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 Store locked up.
 Dispose of contents/container in accordance with local/regional/national/international regulations.

Classification system:**NFPA ratings (scale 0 - 4)****HMIS-ratings (scale 0 - 4)****Other hazards****Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients**Chemical characterization: Mixtures**

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

Dangerous components:

67-56-1	methanol	87.0%
107-14-2	chloroacetonitrile	4.0%
98-95-3	nitrobenzene	2.0%
107-12-0	propionitrile	2.0%
78-99-9	1,1-Dichloropropane	1.0%
80-62-6	methyl methacrylate	0.4%
79-46-9	2-nitropropane	0.4%
107-13-1	acrylonitrile	0.4%
109-99-9	tetrahydrofuran	0.4%
74-88-4	iodomethane	0.2%
126-98-7	methacrylonitrile	0.2%
96-33-3	methyl acrylate	0.2%
75-15-0	carbon disulphide	0.2%
97-63-2	ethyl methacrylate	0.2%
67-72-1	hexachloroethane	0.2%
107-05-1	3-chloropropene	0.2%

Chemical identification of the substance/preparation

110-57-6	trans-2,3-dichlorobut-2-ene	0.4%
1634-04-4	Methyl-tert-butyl ether	0.2%
109-69-3	1-chlorobutane	0.2%
60-29-7	diethyl ether	0.2%

US

(Contd. on page 3)

Safety Data Sheet
acc. to OSHA HCS

Printing date 09/29/2016

Reviewed on 09/29/2016

Product Name: REV 4.0 Add-Ons

(Contd. of page 2)

4 First-aid measures

- **Description of first aid measures**

- **General information:**

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

Remove breathing apparatus only after contaminated clothing have been completely removed.

In case of irregular breathing or respiratory arrest provide artificial respiration.

- **After inhalation:**

Supply fresh air or oxygen; call for 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. Then consult a doctor.

- **After swallowing:** Do not induce vomiting; immediately call for medical help.

- **Information for Doctor:**

- **Most important symptoms and effects, both acute and delayed** No further relevant information available.

- **Indication of any immediate medical attention and special treatment needed** No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**

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

- **For safety reasons unsuitable extinguishing agents:** Water with full jet

- **Special hazards arising from the substance or mixture** No further relevant information available.

- **Advice for firefighters**

- **Protective equipment:** Mouth respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Wear protective equipment. Keep unprotected persons away.

- **Environmental precautions:**

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

Inform respective authorities in case of seepage into water course or sewage system.

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.

Do not flush with water or aqueous cleansing agents

- **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**

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

Prevent formation of aerosols.

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

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Keep respiratory protective device available.

- **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.

US

(Contd. on page 4)

Safety Data Sheet
acc. to OSHA HCS

Printing date 09/29/2016

Reviewed on 09/29/2016

Product Name: REV 4.0 Add-Ons

(Contd. of page 3)

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:**

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.

At this time, the other constituents have no known exposure limits.

67-56-1 methanol	
PEL	Long-term value: 260 mg/m ³ , 200 ppm
REL	Short-term value: 325 mg/m ³ , 250 ppm Long-term value: 260 mg/m ³ , 200 ppm Skin
TLV	Short-term value: 328 mg/m ³ , 250 ppm Long-term value: 262 mg/m ³ , 200 ppm Skin; BEI
98-95-3 nitrobenzene	
PEL	Long-term value: 5 mg/m ³ , 1 ppm Skin
REL	Long-term value: 5 mg/m ³ , 1 ppm Skin
TLV	Long-term value: 5 mg/m ³ , 1 ppm Skin; BEI
107-12-0 propionitrile	
PEL	Long-term value: 5 mg/m ³ as CN; Skin
REL	Long-term value: 14 mg/m ³ , 6 ppm
80-62-6 methyl methacrylate	
PEL	Long-term value: 410 mg/m ³ , 100 ppm
REL	Long-term value: 410 mg/m ³ , 100 ppm
TLV	Short-term value: 410 mg/m ³ , 100 ppm Long-term value: 205 mg/m ³ , 50 ppm DSEN
79-46-9 2-nitropropane	
PEL	Long-term value: 90 mg/m ³ , 25 ppm
REL	See Pocket Guide App. A
TLV	Long-term value: 36 mg/m ³ , 10 ppm
107-13-1 acrylonitrile	
PEL	Long-term value: 2 ppm Ceiling limit value: 10 ppm Skin; see 29 CFR 1910.1045
REL	Long-term value: 1 ppm Ceiling limit value: 10* ppm *15-min; Skin; See Pocket Guide App. A
TLV	Long-term value: 4.3 mg/m ³ , 2 ppm Skin
109-99-9 tetrahydrofuran	
PEL	Long-term value: 590 mg/m ³ , 200 ppm
REL	Short-term value: 735 mg/m ³ , 250 ppm Long-term value: 590 mg/m ³ , 200 ppm
TLV	Short-term value: 295 mg/m ³ , 100 ppm Long-term value: 147 mg/m ³ , 50 ppm Skin
74-88-4 iodomethane	
PEL	Long-term value: 28 mg/m ³ , 5 ppm Skin
REL	Long-term value: 10 mg/m ³ , 2 ppm Skin; See Pocket Guide App. A
TLV	Long-term value: 12 mg/m ³ , 2 ppm Skin

(Contd. on page 5)

Safety Data Sheet
acc. to OSHA HCS

Printing date 09/29/2016

Reviewed on 09/29/2016

Product Name: REV 4.0 Add-Ons

(Contd. of page 4)

126-98-7 methacrylonitrile	
REL	Long-term value: 3 mg/m ³ , 1 ppm Skin
TLV	Long-term value: 2.7 mg/m ³ , 1 ppm Skin
96-33-3 methyl acrylate	
PEL	Long-term value: 35 mg/m ³ , 10 ppm Skin
REL	Long-term value: 35 mg/m ³ , 10 ppm Skin
TLV	Long-term value: 7 mg/m ³ , 2 ppm Skin; DSEN
75-15-0 carbon disulphide	
PEL	Long-term value: 20 ppm Ceiling limit value: 30; 100* ppm Skin; *30-min peak per 8-hr shift
REL	Short-term value: 30 mg/m ³ , 10 ppm Long-term value: 3 mg/m ³ , 1 ppm Skin
TLV	Long-term value: 3.13 mg/m ³ , 1 ppm Skin, BEI
67-72-1 hexachloroethane	
PEL	Long-term value: 10 mg/m ³ , 1 ppm Skin
REL	Long-term value: 10 mg/m ³ , 1 ppm Skin; See Pocket Guide Apps. A and C
TLV	Long-term value: 9.7 mg/m ³ , 1 ppm Skin
107-05-1 3-chloropropene	
PEL	Long-term value: 3 mg/m ³ , 1 ppm
REL	Short-term value: 6 mg/m ³ , 2 ppm Long-term value: 3 mg/m ³ , 1 ppm
TLV	Short-term value: 6 mg/m ³ , 2 ppm Long-term value: 3 mg/m ³ , 1 ppm Skin
Ingredients with biological limit values:	
67-56-1 methanol	
BEI	15 mg/L Medium: urine Time: end of shift Parameter: Methanol (background, nonspecific)
98-95-3 nitrobenzene	
BEI	5 mg/g creatinine Medium: urine Time: end of shift at end of workweek Parameter: Total p-nitrophenol (nonspecific)
	1.5 % of hemoglobin Medium: blood Time: end of shift Parameter: Methemoglobin (background, nonspecific, semi-quantitative)
109-99-9 tetrahydrofuran	
BEI	2 mg/L Medium: urine Time: end of shift Parameter: Tetrahydrofuran
75-15-0 carbon disulphide	
BEI	0.5 mg/g creatinine Medium: urine Time: end of shift Parameter: 2-Thioxothiazolidine-4-carboxylic acid (background, nonspecific)

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

(Contd. on page 6)

US

Product Name: REV 4.0 Add-Ons

(Contd. of page 5)

- **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:**



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

· Information on basic physical and chemical properties

· General Information

· Appearance:

Form: Liquid
Color: According to product specification

· **Odor:** Characteristic

· **Odour Threshold:** Not applicable.

· **pH-value:** Not applicable.

· Change in condition

Melting point/Melting range: Undetermined.
Boiling point/Boiling range: 64 °C (147 °F)

· **Flash point:** 11 °C (52 °F)

· **Flammability (solid, gaseous):** Not applicable.

· **Ignition temperature:** 455 °C (851 °F)

· **Decomposition temperature:** Not applicable.

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

· Explosion limits:

Lower: 5.5 Vol %
Upper: 44.0 Vol %

· **Vapor pressure at 20 °C (68 °F):** 128 hPa (96 mm Hg)

· **Density** Not applicable.

· **Relative density** Not applicable.

· **Vapor density** Not applicable.

· **Evaporation rate** Not applicable.

(Contd. on page 7)

Product Name: REV 4.0 Add-Ons

(Contd. of page 6)

- **Solubility in / Miscibility with Water:** Not miscible or difficult to mix.
- **Partition coefficient (n-octanol/water):** Not applicable.
- **Viscosity:**
 - Dynamic:** Not applicable.
 - Kinematic:** Not applicable.
- **Solvent content:**
 - Organic solvents:** 88.4 %
 - VOC content:** 88.4 %
- **Solids content:** 0.2 %
- **Other information** 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.
- **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:**

67-56-1 methanol

Oral	LD50	5628 mg/kg (rat)
Dermal	LD50	15800 mg/kg (rabbit)

107-14-2 chloroacetonitrile

Oral	LD50	220 mg/kg (rat)
Dermal	LD50	71 mg/kg (rabbit)

98-95-3 nitrobenzene

Oral	LD50	780 mg/kg (rat)
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107-12-0 propiononitrile

Oral	LD50	39 mg/kg (rat)
Dermal	LD50	210 mg/kg (rabbit)

79-46-9 2-nitropropane

Oral	LD50	720 mg/kg (rat)
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107-13-1 acrylonitrile

Oral	LD50	78 mg/kg (rat)
Dermal	LD50	250 mg/kg (rabbit)
Inhalative	LC50/4 h	425 mg/l (rat)

126-98-7 methacrylonitrile

Oral	LD50	120 mg/kg (rat)
Dermal	LD50	320 mg/kg (rabbit)

75-15-0 carbon disulphide

Oral	LD50	3188 mg/kg (rat)
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- **Primary irritant effect:**
 - on the skin:** No irritant effect.
 - on the eye:** No 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:
 - Toxic
 - Irritant
 - Carcinogenic.

(Contd. on page 8)

Safety Data Sheet
acc. to OSHA HCS

Printing date 09/29/2016

Reviewed on 09/29/2016

Product Name: REV 4.0 Add-Ons

(Contd. of page 7)

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

107-14-2	chloroacetonitrile	3
98-95-3	nitrobenzene	2B
80-62-6	methyl methacrylate	3
79-46-9	2-nitropropane	2B
107-13-1	acrylonitrile	2B
110-57-6	trans-2,3-dichlorobut-2-ene	3
74-88-4	iodomethane	3
1634-04-4	Methyl-tert-butyl ether	3
96-33-3	methyl acrylate	3
67-72-1	hexachloroethane	2B
107-05-1	3-chloropropene	3

· **NTP (National Toxicology Program)**

98-95-3	nitrobenzene	R
79-46-9	2-nitropropane	R
107-13-1	acrylonitrile	R
67-72-1	hexachloroethane	R

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

107-13-1	acrylonitrile	
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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.· **Ecotoxicological effects:**· **Remark:** Harmful to fish· **Additional ecological information:**· **General notes:**

Water hazard class 3 (Self-assessment): extremely hazardous for water

Do not allow product to reach ground water, water course or sewage system, even in small quantities.

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

Harmful to aquatic organisms

· **Results of PBT and vPvB assessment**· **PBT:** Not applicable.· **vPvB:** Not applicable.· **Other adverse effects** No further relevant information available.

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.

14 Transport information

· **UN-Number**· **DOT, ADR, IMDG, IATA**

UN1230

· **UN proper shipping name**· **DOT**

Methanol

· **ADR**

1230 Methanol

· **IMDG, IATA**

METHANOL

(Contd. on page 9)

Safety Data Sheet
acc. to OSHA HCS

Printing date 09/29/2016

Reviewed on 09/29/2016

Product Name: REV 4.0 Add-Ons

(Contd. of page 8)

· **Transport hazard class(es)**

· **DOT**



· **Class**

3 Flammable liquids

· **Label**

3, 6.1

· **ADR**



· **Class**

3 Flammable liquids

· **Label**

3+6.1

· **IMDG**



· **Class**

3 Flammable liquids

· **Label**

3/6.1

· **IATA**



· **Class**

3 Flammable liquids

· **Label**

3 (6.1)

· **Packing group**

· **DOT, ADR, IMDG, IATA**

II

· **Environmental hazards:**

Not applicable.

· **Special precautions for user**

Warning: Flammable liquids

· **Danger code (Kemler):**

336

· **EMS Number:**

F-E,S-D

· **Stowage Category**

B

· **Stowage Code**

SW2 Clear of living quarters.

· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC**

Code

Not applicable.

· **Transport/Additional information:**

· **ADR**

· **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)**

IL

· **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 1230 METHANOL, 3 (6.1), II

US

(Contd. on page 10)

Product Name: REV 4.0 Add-Ons

(Contd. of page 9)

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Sara

· Section 355 (extremely hazardous substances):

98-95-3	nitrobenzene
107-12-0	propionitrile
107-13-1	acrylonitrile
110-57-6	trans-2,3-dichlorobut-2-ene
126-98-7	methacrylonitrile
75-15-0	carbon disulphide

· Section 313 (Specific toxic chemical listings):

67-56-1	methanol
98-95-3	nitrobenzene
80-62-6	methyl methacrylate
79-46-9	2-nitropropane
107-13-1	acrylonitrile
110-57-6	trans-2,3-dichlorobut-2-ene
74-88-4	iodomethane
126-98-7	methacrylonitrile
1634-04-4	Methyl-tert-butyl ether
96-33-3	methyl acrylate
75-15-0	carbon disulphide
67-72-1	hexachloroethane
107-05-1	3-chloropropene

· TSCA (Toxic Substances Control Act):

67-56-1	methanol
107-14-2	chloroacetonitrile
98-95-3	nitrobenzene
107-12-0	propionitrile
80-62-6	methyl methacrylate
79-46-9	2-nitropropane
107-13-1	acrylonitrile
109-99-9	tetrahydrofuran
110-57-6	trans-2,3-dichlorobut-2-ene
74-88-4	iodomethane
126-98-7	methacrylonitrile
1634-04-4	Methyl-tert-butyl ether
96-33-3	methyl acrylate
75-15-0	carbon disulphide
109-69-3	1-chlorobutane
60-29-7	diethyl ether
97-63-2	ethyl methacrylate
67-72-1	hexachloroethane
107-05-1	3-chloropropene

· Proposition 65

· Chemicals known to cause cancer:

98-95-3	nitrobenzene
79-46-9	2-nitropropane
107-13-1	acrylonitrile
74-88-4	iodomethane
67-72-1	hexachloroethane

· Chemicals known to cause reproductive toxicity for females:

75-15-0	carbon disulphide
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· Chemicals known to cause reproductive toxicity for males:

98-95-3	nitrobenzene
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(Contd. on page 11)

Safety Data Sheet
acc. to OSHA HCS

Printing date 09/29/2016

Reviewed on 09/29/2016

Product Name: REV 4.0 Add-Ons

(Contd. of page 10)

75-15-0	carbon disulphide
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· **Chemicals known to cause developmental toxicity:**

67-56-1	methanol
75-15-0	carbon disulphide

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

98-95-3	nitrobenzene	L
80-62-6	methyl methacrylate	E, NL
107-13-1	acrylonitrile	B1
109-99-9	tetrahydrofuran	SC
96-33-3	methyl acrylate	D
109-69-3	1-chlorobutane	D
67-72-1	hexachloroethane	L
107-05-1	3-chloropropene	C

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

98-95-3	nitrobenzene	A3
80-62-6	methyl methacrylate	A4
79-46-9	2-nitropropane	A3
107-13-1	acrylonitrile	A3
109-99-9	tetrahydrofuran	A3
1634-04-4	Methyl-tert-butyl ether	A3
96-33-3	methyl acrylate	A4
75-15-0	carbon disulphide	A4
67-72-1	hexachloroethane	A3
107-05-1	3-chloropropene	A3

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

79-46-9	2-nitropropane
107-13-1	acrylonitrile
74-88-4	iodomethane
67-72-1	hexachloroethane

· **Protective Action Criteria for Chemicals**

· **PAC-1:**

67-56-1	methanol	530 ppm
107-14-2	chloroacetonitrile	0.45 ppm
98-95-3	nitrobenzene	3 ppm
107-12-0	propionitrile	0.27 ppm
78-99-9	1,1-Dichloropropane	2.6 ppm
80-62-6	methyl methacrylate	17 ppm
79-46-9	2-nitropropane	30 ppm
107-13-1	acrylonitrile	0.15 ppm
109-99-9	tetrahydrofuran	100 ppm
110-57-6	trans-2,3-dichlorobut-2-ene	0.078 ppm
74-88-4	iodomethane	25 ppm
126-98-7	methacrylonitrile	0.091 ppm
1634-04-4	Methyl-tert-butyl ether	50 ppm
96-33-3	methyl acrylate	6 ppm
75-15-0	carbon disulphide	13 ppm
109-69-3	1-chlorobutane	4.1 ppm
60-29-7	diethyl ether	500 ppm
97-63-2	ethyl methacrylate	5.5 ppm
67-72-1	hexachloroethane	3 ppm
107-05-1	3-chloropropene	2.8 ppm

· **PAC-2:**

67-56-1	methanol	2,100 ppm
107-14-2	chloroacetonitrile	5.0 ppm

(Contd. on page 12)

Safety Data Sheet
acc. to OSHA HCS

Printing date 09/29/2016

Reviewed on 09/29/2016

Product Name: REV 4.0 Add-Ons

(Contd. of page 11)

98-95-3	nitrobenzene	20 ppm
107-12-0	propiononitrile	3.0 ppm
78-99-9	1,1-Dichloropropane	29 ppm
80-62-6	methyl methacrylate	120 ppm
79-46-9	2-nitropropane	380 ppm
107-13-1	acrylonitrile	1.7 ppm
109-99-9	tetrahydrofuran	500 ppm
110-57-6	trans-2,3-dichlorobut-2-ene	0.86 ppm
74-88-4	iodomethane	50 ppm
126-98-7	methacrylonitrile	1.0 ppm
1634-04-4	Methyl-tert-butyl ether	570 ppm
96-33-3	methyl acrylate	170 ppm
75-15-0	carbon disulphide	160 ppm
109-69-3	1-chlorobutane	45 ppm
60-29-7	diethyl ether	3200* ppm
97-63-2	ethyl methacrylate	61 ppm
67-72-1	hexachloroethane	36 ppm
107-05-1	3-chloropropene	54 ppm

· PAC-3:

67-56-1	methanol	7200* ppm
107-14-2	chloroacetonitrile	15 ppm
98-95-3	nitrobenzene	200 ppm
107-12-0	propiononitrile	9.1 ppm
78-99-9	1,1-Dichloropropane	170 ppm
80-62-6	methyl methacrylate	570 ppm
79-46-9	2-nitropropane	2,300 ppm
107-13-1	acrylonitrile	28 ppm
109-99-9	tetrahydrofuran	5000* ppm
110-57-6	trans-2,3-dichlorobut-2-ene	3.8 ppm
74-88-4	iodomethane	125 ppm
126-98-7	methacrylonitrile	3.1 ppm
1634-04-4	Methyl-tert-butyl ether	5300* ppm
96-33-3	methyl acrylate	1,000 ppm
75-15-0	carbon disulphide	480 ppm
109-69-3	1-chlorobutane	340 ppm
60-29-7	diethyl ether	19000*** ppm
97-63-2	ethyl methacrylate	370 ppm
67-72-1	hexachloroethane	300 ppm
107-05-1	3-chloropropene	140 ppm

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

· **Hazard pictograms**



· **Signal word** Danger

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

methanol
nitrobenzene
methacrylonitrile
chloroacetonitrile

· **Hazard statements**

H225 Highly flammable liquid and vapor.
H302+H312 Harmful if swallowed or in contact with skin.
H331 Toxic if inhaled.
H317 May cause an allergic skin reaction.
H350 May cause cancer.

(Contd. on page 13)

Product Name: REV 4.0 Add-Ons

(Contd. of page 12)

- H360 May damage fertility or the unborn child.
 H370 Causes damage to organs.
 H372-H373 Causes damage to organs through prolonged or repeated exposure. May cause damage to the blood through prolonged or repeated exposure.

- **Precautionary statements**

- Keep away from heat/sparks/open flames/hot surfaces. No smoking.
- Use explosion-proof electrical/ventilating/lighting/equipment.
- Do not breathe dust/fume/gas/mist/vapors/spray.
- If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- Store locked up.
- Dispose of contents/container in accordance with local/regional/national/international regulations.

- **National regulations:**

- **Information about limitation of use:**

- Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation. Exceptions can be made by the authorities in certain cases.

- **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:** product safety department

- **Contact:**

SPEX CertiPrep, LLC.
1-732-549-7144

- **Date of preparation / last revision** 09/29/2016 / -

- **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)
 IMDG: International Maritime Code for Dangerous Goods
 DOT: US Department of Transportation
 IATA: International Air Transport Association
 ACGIH: American Conference of Governmental Industrial Hygienists
 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
 NIOSH: National Institute for Occupational Safety
 OSHA: Occupational Safety & Health
 TLV: Threshold Limit Value
 PEL: Permissible Exposure Limit
 REL: Recommended Exposure Limit
 BEI: Biological Exposure Limit
 Flam. Liq. 2: Flammable liquids – Category 2
 Acute Tox. 4: Acute toxicity – Category 4
 Acute Tox. 3: Acute toxicity – Category 3
 Skin Sens. 1: Skin sensitisation – Category 1
 Carc. 1B: Carcinogenicity – Category 1B
 Repr. 1: Reproductive toxicity – Category 1
 STOT SE 1: Specific target organ toxicity (single exposure) – Category 1
 STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1