

SAFETY DATA SHEET

Safety Data Sheet according to regulation (EC) No 1907/2006 & 1272/2008 and amendments

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND THE COMPANY/UNDERTAKING

Product Identifier: **MACRYNAL® SM 507/53XBAC acrylic resins**
Product Description: Acrylic copolymer

RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST

Intended/Recommended Use: Binder

DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

Company: Allnex Belgium SA/NV, Square Marie Curie 11, 1070 Brussels, BE.

For Product and all Non-Emergency Information call your local Allnex contact point or contact us at <http://www.allnex.com/contact>

Local Contact Information: Allnex Belgium SA/NV, Anderlechtstraat, 33, 1620 Drogenbos, BE
Telephone no.: +32 (0) 2-3345111

EMERGENCY TELEPHONE NUMBER (24 hours/day) - For emergency only involving spill, leak, fire, exposure or accident call:

Asia Pacific:

Australia: +61 2801 44558 (Carechem 24)
China (PRC): +86(0)532-8388-9090 (NRCC)
Japan: +81 345 789 341 (Carechem 24)
New Zealand: +64 9929 1483 (Carechem 24)
India: +91 1166 411 405 or +65 3158 1198 (Carechem 24)
All Others: +65 3158 1074 (Carechem 24)

Europe/Africa/Middle East (Carechem 24):

Europe, Middle East, Africa, Israel: +44 (0) 1235 239 670
Middle East, Africa (Arabic speaking countries): +44 (0) 1235 239 671

Latin America:

Brazil: +55-800-707-7022 (toll free) or +55-11-98149-0850 (Suatrans 24)
Mexico and all others: +52-555-004-8763 (Carechem 24)

Canada and USA (Carechem 24 - Allnex29003-NCEC): +1-866-928-0789 (toll free) or +1-215-207-0061

® indicates trademark registered in the U.S. Outside the U.S., mark may be registered, pending or a trademark. Mark is or may be used under license.

2. HAZARDS IDENTIFICATION

CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

Classification according to Regulation (EC) No 1272/2008 and amendments

Flammable Liquid Hazard Category 3
Specific Target Organ Toxicity (STOT) - Repeated Exposure Hazard Category 2
Specific Target Organ Toxicity (STOT) - Single Exposure Hazard Category 3
Skin Corrosion / Irritation Hazard Category 2
Serious Eye Damage / Eye Irritation Hazard Category 2

LABEL ELEMENTS



Signal Word

Warning

Hazard Statements

H226 - Flammable liquid and vapour.
H373 - May cause damage to organs through prolonged or repeated exposure.
H336 - May cause drowsiness or dizziness.
H315 - Causes skin irritation.
H319 - Causes serious eye irritation.
EUH208 - Contains 2-Hydroxyethyl methacrylate and Methyl methacrylate. May produce an allergic reaction.
EUH208 - Contains t-Butyl methacrylate. May produce an allergic reaction.
EUH066 - Repeated exposure may cause skin dryness or cracking.

Precautionary Statements

Precautionary statements on the label will be reduced as indicated in Regulation (EC) No 1272/2008, Article 28.

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P240 - Ground/bond container and receiving equipment.
P241 - Use explosion-proof electrical/ventilating/lighting/equipment.
P242 - Use only non-sparking tools.
P243 - Take precautionary measures against static discharge.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P260 - Do not breathe dust/fume/gas/mist/vapours/spray.
P271 - Use only outdoors or in a well-ventilated area.
P264 - Wash face, hands and any exposed skin thoroughly after handling.
P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P370 + P378 - In case of fire: Use CO₂, dry chemical, or foam for extinction.
P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312 - Call a POISON CENTER or doctor/physician if you feel unwell.
P321 - Specific treatment (see supplemental first aid instructions on this label).
P332 + P313 - If skin irritation occurs: Get medical advice/attention.
P362 + P364 - Take off contaminated clothing and wash it before reuse.
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 - If eye irritation persists: Get medical advice/attention.
P403 + P235 - Store in a well-ventilated place. Keep cool.
P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.
P405 - Store locked up.
P501 - Dispose of contents/container in accordance with local and national regulations.

OTHER HAZARDS

Not applicable

RESULTS OF PBT AND vPvB ASSESSMENT

Not determined

3. COMPOSITION/INFORMATION ON INGREDIENTS**Substance, Mixture or Article?** Mixture

Component / CAS No.	%	EC-No	REACH Registration Number	REACH SVHC	Classification according to Regulation (EC) No 1272/2008 (CLP)	M-Factor
Butyl acetate 123-86-4	18 - 20	204-658-1	01-2119485493-29	-	Flam. Liq. 3 (H226) STOT SE 3 (H336)	-
Xylene 1330-20-7	14 - 16	215-535-7	01-2119488216-32	-	Flam. Liq. 3 (H226) Acute Tox. 4 (H312) Acute Tox. 4 (H332) STOT RE 2 (H373) STOT Single 3 (H335) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Asp. Tox. 1 (H304)	-
1-Methoxy-2-propanol acetate 108-65-6	~ 7,2	203-603-9	01-2119475791-29	-	Flam. Liq. 3 (H226)	-
Ethylbenzene 100-41-4	~ 5	202-849-4	01-2119489370-35	-	Flam. Liq. 2 (H225) Acute Tox. 4 (H332) STOT RE 2 (H373) Asp. Tox. 1 (H304) Aquatic Chronic 3 (H412)	-
Methyl methacrylate 80-62-6	~ 0,9	201-297-1	01-2119452498-28	-	Flam. Liq. 2 (H225) D STOT SE 3 (H335) D Skin Irrit. 2 (H315) D Skin Sens. 1B (H317) D	-
Toluene 108-88-3	~ 0,1	203-625-9	01-2119471310-51	-	Flam. Liq. 2 (H225) Repr. 2 (H361d) STOT RE 2 (H373) STOT SE 3 (H336) Skin Irrit. 2 (H315) Asp. Tox. 1 (H304)	-
Hydroxyethyl methacrylate 868-77-9	~ 0,1	212-782-2	01-2119490169-29	-	Eye Irrit. 2 (H319) D Skin Sens. 1B (H317) D	-
Butyl methacrylate 97-88-1	~ 0,1	202-615-1	01-2119486394-28	-	Flam. Liq. 3 (H226) D STOT SE 3 (H335) D Skin Irrit. 2 (H315) D Skin Sens. 1 (H317) D	-

XYLENE: Several REACH registrations cover the multi-constituent substance with xylene isomers, ethylbenzene (and toluene). The other REACH descriptions are:

Aromatic hydrocarbons, C8 (EC-No. 292-694-9; REACH Registration number 01-2119486136-34; CAS No. 90989-38-1)

Reaction mass of ethylbenzene and m-xylene and p-xylene (EC-No. 905-562-9; Registration number 01-2119555267-33)

See Section 16 for full text of H phrases.

4. FIRST AID MEASURES**DESCRIPTION OF FIRST AID MEASURES**

Eye Contact:

Rinse immediately with plenty of water for at least 15 minutes. Obtain medical advice if there are persistent symptoms.

Skin Contact:

Remove contaminated clothing and shoes without delay. Wash immediately with plenty of water. Do not reuse contaminated clothing without laundering. Get medical attention if pain or irritation persists after washing or if signs and symptoms of overexposure appear.

Ingestion:

If swallowed, call a physician immediately. Only induce vomiting at the instruction of a physician. Never give anything by mouth to an unconscious person.

Inhalation:

Remove to fresh air. If breathing is difficult, give oxygen. Obtain medical advice if there are persistent symptoms.

MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

None known

INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDS

Not applicable

5. FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA

Suitable Extinguishing Media:

Use water spray, alcohol foam, carbon dioxide or dry chemical to extinguish fires. Water stream may be ineffective.

SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

Keep containers cool by spraying with water if exposed to fire.

ADVICE FOR FIREFIGHTERS

Protective Equipment:

Firefighters, and others exposed, wear self-contained breathing apparatus. Wear full firefighting protective clothing. See MSDS Section 8 (Exposure Controls/Personal Protection).

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Where exposure level is not known, wear approved, positive pressure, self-contained respirator. Where exposure level is known, wear approved respirator suitable for level of exposure. In addition to the protective clothing/equipment in Section 8 (Exposure Controls/Personal Protection), wear impermeable boots.

Environmental Precautions:

Use appropriate containment to avoid environmental contamination. Avoid release to the environment.

Methods and material for containment and cleaning up:

Cover spills with some inert absorbent material; sweep up and place in a waste disposal container. Flush spill area with water. Remove sources of ignition.

References to other sections:

See Sections 8 and 13 for additional information.

7. HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING

Precautions: Keep away from heat, sparks and open flame. - No smoking. Keep container tightly closed. Ground/Bond container and receiving equipment. Use explosion-proof electrical, ventilating, lighting and other equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wear protective gloves and eye/face protection. Wash hands thoroughly after handling. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid release to the environment. Use only outdoors or in a well-ventilated area. Do not breathe vapors or spray mist.

Special Handling Statements: Provide good ventilation of working area (local exhaust ventilation if necessary). During processing and handling of the product, comply with the indicative occupational exposure limit values. Containers must be bonded and grounded when pouring or transferring material.

Conditions for safe storage, including any incompatibilities:

Store in a cool, dry, well ventilated place and keep container tightly closed. Areas containing this material should have fire safe practices and electrical equipment in accordance with applicable regulations and/or guidelines. Standards are primarily based on the material's flashpoint, but may also take into account properties such as miscibility with water or toxicity. All local and national regulations should be followed. Keep away from sources of ignition - refrain from smoking. Avoid flammable gas mixtures. Take precautionary measures against electrostatic loading - earthing necessary during loading operations. Vapours may form explosive mixtures with air.

Storage Temperature: Store at 0 - 25 °C

Reason: Quality.

Storage Class (TRGS 510): 3

Specific end use(s):

Refer to Section 1 or Exposure Scenario if applicable.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

CONTROL PARAMETERS

123-86-4 Butyl acetate

United Kingdom: WEL (Workplace Exposure Limits)	150 ppm (TWA) 724 mg/m ³ (TWA) 200 ppm (STEL) 966 mg/m ³ (STEL)
Europe ILV (Indicative Limit Values):	Not established
Other Value:	Not established

1330-20-7 Xylene

United Kingdom: WEL (Workplace Exposure Limits)	50 ppm (TWA) 220 mg/m ³ (TWA) (skin) 100 ppm (STEL) 441 mg/m ³ (STEL) 650 mmol/mol creatinine (urine) Methyl hippuric acid (Health Guidance Value) (EH40)
---	---

Europe ILV (Indicative Limit Values):	Not established
Other Value:	Not established
108-65-6 1-Methoxy-2-propanol acetate	
United Kingdom: WEL (Workplace Exposure Limits)	50 ppm (TWA) 274 mg/m ³ (TWA) (skin) 100 ppm (STEL) 548 mg/m ³ (STEL)
Europe ILV (Indicative Limit Values):	Not established
Other Value:	Not established
100-41-4 Ethylbenzene	
United Kingdom: WEL (Workplace Exposure Limits)	100 ppm (TWA) 441 mg/m ³ (TWA) (skin) 125 ppm (STEL) 552 mg/m ³ (STEL)
Europe ILV (Indicative Limit Values):	Not established
Other Value:	Not established
80-62-6 Methyl methacrylate	
United Kingdom: WEL (Workplace Exposure Limits)	50 ppm (TWA) 208 mg/m ³ (TWA) 100 ppm (STEL) 416 mg/m ³ (STEL)
Europe ILV (Indicative Limit Values):	Not established
Other Value:	Not established
108-88-3 Toluene	
United Kingdom: WEL (Workplace Exposure Limits)	50 ppm (TWA) 191 mg/m ³ (TWA) (skin) 100 ppm (STEL) 384 mg/m ³ (STEL)
Europe ILV (Indicative Limit Values):	50 ppm (TWA) 192 mg/m ³ (TWA) 100 ppm (STEL) 384 mg/m ³ (STEL) (skin)
Other Value:	Not established

Derived No Effect Level (DNEL):**Butyl acetate (123-86-4)**

Use	Route	DNEL	Units	Effects Type
Worker	Dermal	7	mg/kg/day	Long term, systemic
Worker	Inhalation	480	mg/m ³	Long term, systemic
Consumer	Oral	3.4	mg/kg/day	Long term, systemic
Consumer	Dermal	3.4	mg/kg/day	Long term, systemic
Consumer	Inhalation	102.34	mg/m ³	Long term, systemic
Worker	Inhalation	960	mg/m ³	Short term, local
Worker	Inhalation	960	mg/m ³	Short term, systemic
Worker	Inhalation	480	mg/m ³	Long term, local
Consumer	Inhalation	102.34	mg/m ³	Long term, local
Consumer	Inhalation	859.7	mg/m ³	Short term, local
Consumer	Inhalation	859.7	mg/m ³	Short term, systemic

Xylene (1330-20-7)

Use	Route	DNEL	Units	Effects Type
Worker	Inhalation	289	mg/m ³	Short term, systemic
Worker	Inhalation	289	mg/m ³	Short term, local
Worker	Dermal	180	mg/kg	Long term, systemic

Worker	Inhalation	77	mg/m ³	Long term, systemic
Consumer	Inhalation	174	mg/m ³	Short term, systemic
Consumer	Inhalation	174	mg/m ³	Short term, local
Consumer	Dermal	108	mg/kg	Long term, systemic
Consumer	Inhalation	14.8	mg/m ³	Long term, systemic
Consumer	Oral	1.6	mg/kg/day	Long term, systemic

1-Methoxy-2-propanol acetate (108-65-6)

Use	Route	DNEL	Units	Effects Type
Worker	Dermal	153.5	mg/kg	Long term, systemic
Worker	Inhalation	275	mg/m ³	Long term, systemic
Consumer	Dermal	54.8	mg/kg	Long term, systemic
Consumer	Inhalation	33	mg/m ³	Long term, systemic
Consumer	Oral	1.67	mg/kg	Long term, systemic
Worker	Inhalation	550	mg/m ³	Short term, local

Methyl methacrylate (80-62-6)

Use	Route	DNEL	Units	Effects Type
Worker	Inhalation	210	mg/m ³	Long term, local
Worker	Inhalation	210	mg/m ³	Long term, systemic
Worker	Dermal	1.5	mg/cm ²	Long term, local
Worker	Dermal	13.67	mg/kg/day	Long term, systemic
Worker	Dermal	1.5	mg/cm ²	Short term, local
Consumer	Inhalation	105	mg/m ³	Long term, local
Consumer	Inhalation	74.3	mg/m ³	Long term, systemic
Consumer	Dermal	1.5	mg/cm ²	Long term, local
Consumer	Dermal	8.2	mg/kg/day	Long term, systemic
Consumer	Dermal	1.5	mg/cm ²	Short term, local

Toluene (108-88-3)

Use	Route	DNEL	Units	Effects Type
Worker	Inhalation	384	mg/m ³	Short term, local
Worker	Inhalation	384	mg/m ³	Short term, systemic
Worker	Inhalation	192	mg/m ³	Long term, local
Worker	Inhalation	192	mg/m ³	Long term, systemic
Worker	Dermal	384	mg/kg/day	Long term, systemic
General Population	Inhalation	226	mg/m ³	Short term, local
General Population	Inhalation	226	mg/m ³	Short term, systemic
General Population	Inhalation	56.5	mg/m ³	Long term, systemic
General Population	Dermal	226	mg/kg/day	Long term, systemic
General Population	Oral	8.13	mg/kg/day	Long term, systemic
General Population	Inhalation	56.5	mg/m ³	Long term, local

Hydroxyethyl methacrylate (868-77-9)

Use	Route	DNEL	Units	Effects Type
Consumer	Oral	0.83	mg/kg/day	Long term, systemic
Worker	Dermal	1.3	mg/kg/day	Long term, systemic
Consumer	Dermal	0.83	mg/kg/day	Long term, systemic
Worker	Inhalation	4.9	mg/m ³	Long term, systemic
Consumer	Inhalation	2.9	mg/m ³	Long term, systemic

Butyl methacrylate (97-88-1)

Use	Route	DNEL	Units	Effects Type
Worker	Inhalation	415.9	mg/m ³	Long term, systemic
Worker	Inhalation	409	mg/m ³	Long term, local
Worker	Dermal	5	mg/kg/day	Long term, systemic
Consumer	Inhalation	366.4	mg/m ³	Long term, local
Consumer	Inhalation	66.5	mg/m ³	Long term, systemic
Consumer	Dermal	3	mg/kg/day	Long term, systemic

Predicted No Effect Concentration (PNEC):**Butyl acetate (123-86-4)**

Compartment	PNEC	Units
Water	0.18	mg/L
Soil	0.0903	mg/kg
Intermittent water release	0.36	mg/L
Sewage treatment plant	35.6	mg/L
Marine water	0.018	mg/L
Sediment (fresh water)	0.981	mg/kg
Sediment (marine water)	0.0981	mg/kg

Xylene (1330-20-7)

Compartment	PNEC	Units
Fresh water	0.327	mg/L
Marine water	0.327	mg/L
Intermittent water release	0.327	mg/L
Sewage treatment plant	6.58	mg/L
Sediment (fresh water)	12.46	mg/kg
Sediment (marine water)	12.46	mg/kg
Soil	2.31	mg/kg

1-Methoxy-2-propanol acetate (108-65-6)

Compartment	PNEC	Units
Fresh water	0.635	mg/L
Marine water	0.0635	mg/L
Intermittent water release	6.35	mg/L
Sewage treatment plant	100	mg/L
Sediment (fresh water)	3.29	mg/kg
Sediment (marine water)	0.329	mg/kg
Soil	0.29	mg/kg

Methyl methacrylate (80-62-6)

Compartment	PNEC	Units
Fresh water	0.94	mg/L
Marine water	0.094	mg/L
Sediment	5.74	mg/L
Soil	1.47	mg/kg

Toluene (108-88-3)

Compartment	PNEC	Units
Fresh water	0.68	mg/L
Sediment (fresh water)	16.39	mg/L
Soil	2.89	mg/kg
Sewage treatment plant	13.61	mg/L
Marine water	0.68	mg/L
Sediment (marine water)	16.39	mg/L

Hydroxyethyl methacrylate (868-77-9)

Compartment	PNEC	Units
Fresh water	0.482	mg/L
Marine water	0.482	mg/L
Sewage treatment plant	10	mg/L
Intermittent water release	1	mg/L
Sediment (fresh water)	3.79	mg/kg
Sediment (marine water)	3.79	mg/kg
Soil	0.476	mg/kg

Butyl methacrylate (97-88-1)

Compartment	PNEC	Units
-------------	------	-------

Fresh water	0.169	mg/L
Marine water	0.169	mg/L

EXPOSURE CONTROLS

Engineering Measures:

Where this material is not used in a closed system, good enclosure and local exhaust ventilation should be provided to control exposure.

Respiratory Protection:

For operations where inhalation exposure can occur use an approved respirator. Recommendations are listed below. Other protective respiratory equipment may be used based on user's own risk assessment.

Recommended:

Full Face Mask with organic vapor cartridge, Type A filter (BP >65°C)

Eye protection:

Wear eye/face protection such as chemical splash proof goggles or face shield.

Skin Protection:

Avoid skin contact.

Wear impermeable gloves and suitable protective clothing.

Since this product is absorbed through the skin, care must be taken to prevent skin contact and contamination of clothing.

Hand protection:

Wear protective gloves. Recommendations are listed below. Other protective materials may be used based on user's own risk assessment. Barrier creams may help to protect the exposed areas of the skin, they should however not be applied once exposure has occurred. Replace gloves immediately when torn or any change in appearance (dimension, color, flexibility etc.) is noticed.

Gloves for repeated or prolonged exposure - non exhaustive list:

Polyethylene Nylon (PE), thickness: > 0.062 mm, break through time: > 480 min

Gloves for short term exposure/splash protection - non exhaustive list:

Nitrile rubber (NBR), thickness: > 0.56 mm, break through time: < 60 min

The chemical resistance depends on the type of product and amount of product on the glove. Therefore gloves need to be changed when in contact with chemicals.

Not suitable gloves - non exhaustive list:

Nitrile rubber (NBR), thickness: 0.12 mm

Due to many conditions (e.g. temperature, abrasion) the practical usage of a chemical protective glove in practice may be much shorter than the permeation time determined through testing. Use PE gloves as under gloves for difficult situations like for instance: high exposure, unknown composition or unknown properties of the chemicals.

Additional Advice:

Food, beverages, and tobacco products should not be carried, stored, or consumed where this material is in use. Before eating, drinking, or smoking, wash face and hands thoroughly with soap and water. It is recommended that a shower be taken after completion of workshift especially if significant contact has occurred. Work clothing should then be laundered prior to reuse. Street clothing should be stored separately from work clothing and protective equipment. Work clothing and shoes should not be taken home.

Process Category	PROC1 - Use in closed process, no likelihood of exposure PROC2 - Use in closed, continuous process with occasional controlled exposure (e.g. sampling)
Risk Management Measures and Operational Conditions	Operation carried out for < 8 hours Handle substance within a closed system. Use suitable eye protection. Wear suitable gloves tested to EN374.
Process Category	PROC3 - Use in closed batch process (synthesis or formulation)
Risk Management Measures and Operational Conditions	Operation carried out for < 8 hours Handle substance within a closed system. Provide extract ventilation to points where emissions occur. Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour) . Use suitable eye protection. Wear suitable gloves tested to EN374.
Process Category	PROC4 - Use in batch and other process (synthesis) where opportunity for exposure arises PROC5 - Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)
Risk Management Measures and Operational Conditions	Operation carried out for < 8 hours Provide a good standard of controlled ventilation (10 to 15 air changes per hour). Use suitable eye protection. Wear suitable gloves tested to EN374.
Process Category	PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities
Risk Management Measures and Operational Conditions	Operation carried out for < 8 hours Drain down and flush system prior to equipment break-in or maintenance. Ensure material transfers are under containment or extract ventilation. Provide a good standard of controlled ventilation (10 to 15 air changes per hour). Use suitable eye protection. Wear suitable gloves tested to EN374.
Process Category	PROC8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities
Risk Management Measures and Operational Conditions	Avoid carrying out operation for more than 1 hour. Drain down and flush system prior to equipment break-in or maintenance. Ensure material transfers are under containment or extract ventilation. Provide a good standard of controlled ventilation (10 to 15 air changes per hour). Handle substance within a closed system. Use suitable eye protection. Wear suitable gloves tested to EN374.
Process Category	PROC14 - Production of preparations or articles by tableting, compression, extrusion, pelettisation PROC15 - Use as laboratory reagent
Risk Management Measures and Operational Conditions	Operation carried out for < 8 hours Wear suitable gloves (tested to EN374) and eye protection.

9. PHYSICAL AND CHEMICAL PROPERTIES

INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

Colour: colorless to light yellow

Appearance:	viscous liquid
Odor:	organic solvent
Odor Threshold:	See Section 8 for exposure limits.
pH:	Not applicable
Melting Point:	Not available
Boiling Point:	100 - 200 °C
Flash point:	~ 26 °C DIN EN ISO 1523
Evaporation Rate:	Not available
Flammable Limits (% By Vol):	Lower: 1 Upper: 9 (values for solvent)
Vapor Pressure:	< 15 mbar @ 20 °C (value for solvent)
Vapour density:	Not available
Specific Gravity/Density:	~ 1 g/cm ³ @ 20 °C
Solubility In Water:	Insoluble
Partition coefficient (n-octanol/water):	Not available
Autoignition temperature:	Not available
Decomposition Temperature:	Not available
Viscosity (Kinematic):	Not available
Viscosity (Dynamic):	5500 - 7500 mPa.s @ 23 °C DIN EN ISO 3219

OTHER INFORMATION

Fat Solubility (Solvent-Oil):	Not available
Percent Volatile (% by wt.):	45 - 49
Solids Content:	51 - 55 % DIN EN ISO 3251
Saturation In Air (% By Vol.):	Not available
Acid Number (mg KOH/g):	Not available
Hydroxyl Value (mg KOH/g):	~ 60
Volatile Organic Content (1999/13/EC):	Not available

10. STABILITY AND REACTIVITY

Reactivity:	No information available
--------------------	--------------------------

CHEMICAL STABILITY

Stability:	Stable
-------------------	--------

Conditions To Avoid:	Excessively high temperatures and ignition sources. Evolution of flammable mixtures possible in air when heated above flash point and/or during spraying or misting.
-----------------------------	--

POSSIBILITY OF HAZARDOUS REACTIONS

Polymerization:	Will not occur
------------------------	----------------

Conditions To Avoid:	None known
-----------------------------	------------

Incompatible materials:	None known
--------------------------------	------------

Hazardous Decomposition Products:	acrid vapors and fumes Carbon monoxide and carbon dioxide
--	--

11. TOXICOLOGICAL INFORMATION

INFORMATION ON TOXICOLOGICAL EFFECTS

Likely Routes of Exposure: Oral, Skin, Eyes, Respiratory System.

Acute toxicity - oral: Not classified - Based on available data and/or professional judgment, the classification criteria are not met.

Acute toxicity - dermal: Not Classified - Based on available data and/or professional judgment, the classification criteria are not met.

Acute toxicity - inhalation: Not Classified - Based on available data and/or professional judgment, the classification criteria are not met.

Skin corrosion / irritation: Causes skin irritation.

Serious eye damage / eye irritation: Causes serious eye irritation.

Respiratory sensitization: Not Classified - Based on available data and/or professional judgment, the classification criteria are not met.

Skin sensitization: Not Classified - Based on available data and/or professional judgment, the classification criteria are not met.

Carcinogenicity: Not Classified. - Based on available data and/or professional judgment, the classification criteria are not met.

Germ cell mutagenicity: Not Classified. - Based on available data and/or professional judgment, the classification criteria are not met.

Reproductive toxicity: Not Classified. - Based on available data and/or professional judgment, the classification criteria are not met.

Specific target organ toxicity (STOT) - single exposure: May cause drowsiness or dizziness.

Specific target organ toxicity (STOT) - repeated exposure: May cause damage to organs through prolonged or repeated exposure.

Route of Exposure: inhalation **Affected Organs:** Central nervous system, Lung, Liver, Kidneys, Ears

Aspiration hazard: Not Classified - Based on available data and/or professional judgment, the classification criteria are not met.

PRODUCT TOXICITY INFORMATION

ACUTE TOXICITY DATA

oral	rat	Acute LD50	> 2000 mg/kg
dermal	rabbit	Acute LD50	> 2000 mg/kg
inhalation	rat	Acute LC50 4 hr	20 mg/l (Vapors)

LOCAL EFFECTS ON SKIN AND EYE

Acute Irritation	dermal	Irritating
Acute Irritation	eye	Irritating

ALLERGIC SENSITIZATION

Sensitization	Skin	Not sensitizing
Sensitization	respiratory	No data

GENOTOXICITY

Assays for Gene Mutations

Ames Salmonella Assay	No data
-----------------------	---------

OTHER INFORMATION

The product toxicity information above has been estimated.

HAZARDOUS INGREDIENT TOXICITY DATA

Butyl acetate (CAS# 123-86-4) has acute oral (rat) and dermal (rabbit) LD50 values of 10,768 mg/kg and >17,600 mg/kg, respectively (RTECS). The acute 4-hr inhalation (rat) LC50 = >2000 ppm (9.5 mg/L)(NTP). Direct contact with this material may cause moderate eye and skin irritation. In humans, exposure concentrations of 200-300 ppm resulted in slight eye and nose irritation while short exposure to 3300 ppm caused extreme irritation of the eyes and nose (HSDB). Overexposure to solvent vapors may cause irritation of the eyes, nose, and throat. Severe inhalation overexposure may cause weakness, drowsiness, and unconsciousness. Prolonged dermal exposure may produce irritation of the skin. This material did not cause mutagenic activity when tested in the bacterial mutagenicity assay. When tested for reproductive effects in rats, fetotoxicity (stunted growth) and abnormalities of the musculoskeletal system was noted at an exposure concentration of 1500 ppm/7h/day during days 7-16 of pregnancy (HSDB).

Xylene has an acute oral LD50 (rat) of > 3523 mg/kg, acute dermal LD50 (rabbit) value of 4200 mg/kg, and an acute 4-hour LC50 (rat) of 29 mg/l (vapor). Inhalation of vapors may be irritating to the nose and throat. Inhalation of high concentrations may result in nausea, vomiting, headache, ringing in the ears, and severe breathing difficulties, which may be delayed in onset. High vapor concentrations are anesthetic and central nervous system depressants. Ingestion causes burning sensation in mouth and stomach, nausea vomiting and salivation. Minute amounts aspirated into the lungs can produce a severe hemorrhagic pneumonitis with severe pulmonary injury or death. Chronic inhalation can cause headache, loss of appetite, nervousness and pale skin. Skin contact results in moderate irritation and loss of natural oils. Repeated or prolonged skin contact may cause a skin rash. May be absorbed through the skin. Vapors cause eye irritation. Splashes cause severe irritation, possible corneal burns and eye damage. Repeated exposure of eyes to high concentrations of vapor may cause reversible eye damage. Chronic, repeated exposure may cause blood cell damage resulting in low blood cell count. May damage liver and kidneys. Xylene has been investigated for reproductive toxicity and may cause teratogenic effects.

Methoxy-2-propanol acetate has acute oral (rat), acute dermal (rabbit) LD50 values of 8532 mg/kg and >5000 mg/kg, respectively. The acute 4-hr inhalation (rat) LC50 is reported to be 35.7 mg/L. Direct contact with 1-Methoxy-2-propanol acetate can cause mild eye and skin irritation.

Ethylbenzene has acute oral (rat) and dermal (rabbit) LD50 values of 3500 mg/kg and 15400 mg/kg respectively. The 4-hour inhalation LC50 in rats is 2180 ppm. It is a mild eye (rated 2 on a scale of 10) and a mild skin (rated 4 on a scale of 10) irritant. Prolonged exposure to the vapor of ethylbenzene may cause irritation of the eyes and upper respiratory tract, vertigo, motor ataxia, unconsciousness, and hematological disorders and hepatobiliary complaints. The International Agency for Research on Cancer has evaluated ethylbenzene and classified it as a possible human carcinogen (Group 2B) based on sufficient evidence for carcinogenicity in experimental animals, but inadequate evidence for cancer in exposed humans. Developmental toxicity studies in rats indicate skeletal malformation and reduced foetal weight.

The following acute toxicity values are available for methyl methacrylate: acute oral LD50 (rat) is approximately 8,400 mg/kg; acute dermal LD50 (rabbit) is >35,000 mg/kg; and acute inhalation LC50 (rat, 4 hour, vapor) is 7093 ppm. Liquid methyl methacrylate (MMA) may cause primary eye or skin irritation. Allergic skin reactions may occur by repeated direct contact. Vapor overexposure may cause irritation to the eyes or respiratory tract and may cause central nervous system depression. In a repeat dose (oral) study, MMA showed behavioral effects at the highest dose of 500 mg/kg. No behavioral effects were seen at the lower doses of 100 and 200 mg/kg. The results of in vitro mutagenicity studies are mixed: MMA was inactive in the Ames and HGPRT assays but active (positive) in the mouse lymphoma assay both with and without metabolic activation, positive in the sister chromatid exchange (SCE) assay and also positive in the chromosomal aberration assay using Chinese hamster ovary (CHO) cells, both with and without metabolic activation. However, results of in vivo mutagenicity studies with MMA are negative. MMA was inactive (negative) in several in vivo mutagenicity studies - in vivo chromosomal aberration (inhalation study) and several in vivo mouse micronucleus studies (oral route). MMA was not carcinogenic to rats and mice when inhaled at concentrations up to 1000 ppm for 2 years in studies sponsored by the National Toxicology Program. These concentrations produced chronic nasal irritation resulting in inflammation of the nasal cavity and degeneration of the olfactory epithelium.

Toluene has acute oral (rat) and dermal (rabbit) LD50 values of 4,328 mg/kg and 12124 mg/kg, respectively. The acute 4-hour inhalation (rat, female) LC50 value is 5,060 ppm (19.07 mg/L). Toluene is a severe eye and moderate skin irritant. Inhalation overexposure to toluene vapor can cause headache, fatigue, nausea, and central nervous system depression. Sustained inhalation of high levels of toluene has been shown to cause reversible kidney and liver damage. Subchronic inhalation of toluene vapors have caused permanent hearing loss, decreased learning capabilities and damage to the eyes in laboratory animal tests. Deliberate inhalation of high concentrations of toluene vapor by pregnant women has been shown to adversely affect the fetus. These fetotoxic effects include intrauterine growth retardation and delayed postnatal development. The fetotoxic effects of toluene seen in laboratory animals are similar to those seen in humans. Ingestion of toluene in laboratory animals caused mild gastritis and harmful effects on the respiratory system, kidneys, liver and heart. Ingestion in laboratory animals also caused harmful effects on the central nervous system and death. It has also been reported that subchronic ingestion of toluene caused brain and bladder damage in laboratory animals. Due to synergistic effects, the toxicity of toluene may be enhanced by exposure to n-hexane, benzene, xylene, acetylsalicylic acid and chlorinated hydrocarbons. The literature reports that toluene is an aspiration hazard, that acute oral exposure resulted in reversible visual dysfunction, and that chronic exposure has caused altered immune function in animals. Toluene is a chemical known to the State of California to cause reproductive toxicity.

Hydroxyethyl methacrylate (CAS # 868-77-9) has acute oral (rat) and dermal (rabbit) LD50 values of > 5000 mg/kg and > 3000 mg/kg, respectively. This material may cause moderate eye and mild skin irritation. Repeated skin contact with hydroxyethyl methacrylate may cause skin sensitization (guinea pig). Cases of sensitisation also observed in humans. No indications of teratogenic effects in experimental animals. The substance was not mutagenic in the Ames test.

Butyl methacrylate (CASRN 97-88-1) has acute oral toxicity (LD50, rat) and acute dermal toxicity (LD50, rabbit) values of > 2,000 mg/kg, respectively. The acute inhalation toxicity (LC50, rat) value is 29 mg/l. This substance is a slight eye irritant and moderate skin irritant. Prolonged skin contact may cause a more severe skin response. This substance may cause allergic skin reactions. Inhalation of vapors or aerosols may cause respiratory tract irritation. Butyl methacrylate was not mutagenic in in vivo and in vitro tests and is not considered a teratogenic or embryotoxic; however, at high exposures, fetotoxic effects were observed in animal tests.

12. ECOLOGICAL INFORMATION

TOXICITY, PERSISTENCE AND DEGRADABILITY, BIOACCUMULATIVE POTENTIAL, MOBILITY IN SOIL, OTHER ADVERSE EFFECTS

The ecological assessment for this material is based on an evaluation of its components.
This material is not classified as dangerous for the environment.

RESULTS OF PBT AND vPvB ASSESSMENT

Not determined

HAZARDOUS INGREDIENT TOXICITY DATA

Component / CAS No.	Toxicity to Algae	Toxicity to Fish	Toxicity to Water Flea
---------------------	-------------------	------------------	------------------------

Butyl acetate 123-86-4	EC50 = 674.7 mg/L - Desmodesmus subspicatus (72h)	LC50 = 100 mg/L - Lepomis macrochirus (96h) LC50 17 - 19 mg/L - Pimephales promelas (96h) LC50 = 62 mg/L - Leuciscus idus (96h)	EC50 = 72.8 mg/L - Daphnia magna (24h)
Xylene 1330-20-7	EC50 = 11 mg/L - Pseudokirchneriella subcapitata (72h)	LC50 13.5 - 17.3 mg/L - Oncorhynchus mykiss (96h) LC50 = 19 mg/L - Lepomis macrochirus (96h) LC50 = 13.4 mg/L - Pimephales promelas (96h) LC50 2.661 - 4.093 mg/L - Oncorhynchus mykiss (96h) LC50 13.1 - 16.5 mg/L - Lepomis macrochirus (96h) LC50 23.53 - 29.97 mg/L - Pimephales promelas (96h) LC50 30.26 - 40.75 mg/L - Poecilia reticulata (96h) LC50 = 780 mg/L - Cyprinus carpio (96h) LC50 > 780 mg/L - Cyprinus carpio (96h) LC50 7.711 - 9.591 mg/L - Lepomis macrochirus (96h)	EC50 = 3.82 mg/L - water flea (48h) LC50 = 0.6 mg/L - Gammarus lacustris (48h)
1-Methoxy-2-propanol acetate 108-65-6	Not available	LC50 = 161 mg/L - Pimephales promelas (96h)	EC50 > 500 mg/L - Daphnia magna (48h)
Ethylbenzene 100-41-4	EC50 = 4.6 mg/L - Pseudokirchneriella subcapitata (72h) EC50 > 438 mg/L - Pseudokirchneriella subcapitata (96h) EC50 2.6 - 11.3 mg/L - Pseudokirchneriella subcapitata (72h) EC50 1.7 - 7.6 mg/L - Pseudokirchneriella subcapitata (96h) EC50 = 11 mg/L - Pseudokirchneriella subcapitata (72h)	LC50 11.0 - 18.0 mg/L - Oncorhynchus mykiss (96h) LC50 = 4.2 mg/L - Oncorhynchus mykiss (96h) LC50 7.55 - 11 mg/L - Pimephales promelas (96h) LC50 = 32 mg/L - Lepomis macrochirus (96h) LC50 9.1 - 15.6 mg/L - Pimephales promelas (96h) LC50 = 9.6 mg/L - Poecilia reticulata (96h)	EC50 1.8 - 2.4 mg/L - Daphnia magna (48h)
Methyl methacrylate 80-62-6	EC50 = 170 mg/L - Pseudokirchneriella subcapitata (96h)	LC50 > 79 mg/L - Oncorhynchus mykiss (96h) LC50 243 - 275 mg/L - Pimephales promelas (96h) LC50 170 - 206 mg/L - Lepomis macrochirus (96h) LC50 326.4 - 426.9 mg/L - Poecilia reticulata (96h) LC50 125.5 - 190.7 mg/L - Pimephales promelas (96h) LC50 153.9 - 341.8 mg/L - Lepomis macrochirus (96h)	EC50 = 69 mg/L - Daphnia magna (48h)
Toluene 108-88-3	EC50 > 433 mg/L - Pseudokirchneriella subcapitata (96h) EC50 = 12.5 mg/L - Pseudokirchneriella subcapitata (72h)	LC50 15.22 - 19.05 mg/L - Pimephales promelas (96h) LC50 = 12.6 mg/L - Pimephales promelas (96h) LC50 5.89 - 7.81 mg/L - Oncorhynchus mykiss (96h) LC50 = 54 mg/L - Oryzias latipes (96h) LC50 11.0 - 15.0 mg/L - Lepomis macrochirus (96h) LC50 50.87 - 70.34 mg/L - Poecilia reticulata (96h) LC50 = 5.8 mg/L - Oncorhynchus mykiss (96h) LC50 14.1 - 17.16 mg/L - Oncorhynchus mykiss (96h) LC50 = 28.2 mg/L - Poecilia reticulata (96h)	EC50 5.46 - 9.83 mg/L - Daphnia magna (48h) EC50 = 11.5 mg/L - Daphnia magna (48h)

Hydroxyethyl methacrylate 868-77-9	Not available	LC50 213 - 242 mg/L - Pimephales promelas (96h) LC50 = 227 mg/L - Pimephales promelas (96h)	Not available
Butyl methacrylate 97-88-1	EC50 = 57 mg/L - Pseudokirchneriella subcapitata (96h)	LC50 = 11 mg/L - Pimephales promelas (96h)	EC50 = 32 mg/L - Daphnia magna (48h)

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

The company encourages the recycle and reuse of products and packaging, where possible and permitted.

Product disposal

When recycle or reuse is not possible, the company recommends that our products, especially when classified as hazardous, be disposed of by thermal treatment or incineration at approved facilities. All local and national regulations should be followed. For disposal within the European Community, waste codes according to Directive 2008/98/EC should be assigned by the user based on the application for which the product was used.

Packaging disposal

Handle contaminated packages in the same way as the product itself. Disposal of emptied and cleaned packaging must be made in accordance with applicable local and national regulations.

Disposal-relevant information

Do not release directly or indirectly to surface water, ground water, soil or public sewage system.

14. TRANSPORT INFORMATION

This section provides basic shipping classification information. Refer to appropriate transportation regulations for specific requirements.

ADR/RID/ADN

Dangerous Goods? X
UN PROPER SHIPPING NAME: RESIN SOLUTION, flammable
Transport Hazard Class: 3
UN Number: UN1866
Packing Group: III
Transport Label Required: Flammable liquid
Shipped under Exception: Carriage in accordance with 2.2.3.1.5
Tunnel restriction code: D/E
Comments: Not intended for shipment by inland waterways in tank vessels.

IMO

Dangerous Goods? X
UN PROPER SHIPPING NAME: RESIN SOLUTION
Transport Hazard Class: 3
UN Number: UN1866
Packing Group: III
Transport Label Required: Flammable liquid

ICAO / IATA

Dangerous Goods? X
UN PROPER SHIPPING NAME: RESIN SOLUTION
Transport Hazard Class: 3
Packing Group: III

UN Number: UN1866
Transport Label Required: Flammable liquid

15. REGULATORY INFORMATION

SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS / LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE

Ozone Depleting Substances (Regulation (EC) No 1005/2009): Not applicable
Persistent Organic Pollutants (Regulation (EC) No 850/2004): Not applicable
Prior Informed Consent (Regulation (EC) No 689/2008): Not applicable
Substances subject to Authorization (Annex XIV of Regulation (EC) No 1907/2006): Not applicable

Substances subject to Restrictions for certain applications(Annex XVII of Regulation(EC)No 1907/2006):

Yes

Refer to Annex XVII of REACH for details of the restricted applications.

Butyl acetate (18 - 20 %)

This substance is a flammable restricted for aerosols under item 40.

Xylene (14 - 16 %)

This substance is a flammable restricted for aerosols under item 40.

1-Methoxy-2-propanol acetate (~ 7,2 %)

This substance is a flammable restricted for aerosols under item 40.

Ethylbenzene (~ 5 %)

This substance is a flammable restricted for aerosols under item 40.

Toluene (~ 0,1 %)

This substance is restricted under item 48. This substance is a flammable restricted for aerosols under item 40.

Benzene (~ 0,002 %)

This is a carcinogen substance restricted under item 28. This is a mutagen substance restricted under item 29.

This substance is restricted under item 5. This substance is a flammable restricted for aerosols under item 40.

Water Endangering Class (Germany): 2 according to VwVwS, 17.05.1999

Inventory Information

European Economic Area (including EU): When purchased from an Allnex legal entity based in the EEA (EU or Norway), this product is compliant with the registration of the REACH Regulation (EC) No. 1907/2006 as all its components are either excluded, exempt, pre-registered and/or registered.

United States (USA): All components of this product are included on the TSCA Chemical Inventory or are not required to be listed on the TSCA Chemical Inventory.
The final product contains a component exempt from the requirement of listing on the TSCA Inventory under the provisions of the Polymer Exemption, 40 CFR 723.250.

Canada: All components of this product are included on the Domestic Substances List (DSL) or are not required to be listed on the DSL.

Australia: All components of this product are included in the Australian Inventory of Chemical Substances (AICS) or are not required to be listed on AICS.

China: All components of this product are included on the Chinese inventory or are not required to be listed on the Chinese inventory.

Japan: All components of this product are included on the Japanese (ENCS and ISHL) inventories or are not required to be listed on the Japanese inventories.

Korea: All components of this product are included on the Korean (ECL) inventory or are not required to be listed on the Korean inventory.

Philippines: All components of this product are either listed on the Philippine (PICCS) inventory, have been assessed by Environmental Management Bureau (EMB) or are exempt from notification requirements.

Taiwan: All components of this product are included in the Taiwan chemical substance inventory or are not required to be listed on the Taiwan chemical substance inventory (TCSI).

CHEMICAL SAFETY ASSESSMENT

No Chemical Safety Assessment has been carried out.

16. OTHER INFORMATION

Reasons for Issue: Revised Section 8
Revised Section 16

Date Prepared: 18-Jul-2016

Date of last significant revision: 18-Jul-2016

Classification methods include one or more of the following: use of specific product data, read-across data, modeling, professional judgment or a component based evaluation.

Component - Hazard Statements

Butyl acetate

H226 - Flammable liquid and vapour.

H336 - May cause drowsiness or dizziness.

Xylene

H226 - Flammable liquid and vapour.

H304 - May be fatal if swallowed and enters airways.

H312 - Harmful in contact with skin.

H315 - Causes skin irritation.

H319 - Causes serious eye irritation.

H332 - Harmful if inhaled.

H335 - May cause respiratory irritation.

H373 - May cause damage to organs through prolonged or repeated exposure.

1-Methoxy-2-propanol acetate

H226 - Flammable liquid and vapour.

Ethylbenzene

H225 - Highly flammable liquid and vapour.

H304 - May be fatal if swallowed and enters airways.

H332 - Harmful if inhaled.

H373 - May cause damage to organs through prolonged or repeated exposure.

H412 - Harmful to aquatic life with long lasting effects.

Methyl methacrylate

H225 - Highly flammable liquid and vapour.

H315 - Causes skin irritation.

H317 - May cause an allergic skin reaction.

H335 - May cause respiratory irritation.

Toluene

H225 - Highly flammable liquid and vapour.

H304 - May be fatal if swallowed and enters airways.

H315 - Causes skin irritation.

H336 - May cause drowsiness or dizziness.

H373 - May cause damage to organs through prolonged or repeated exposure.

H361d - Suspected of damaging the unborn child.

Hydroxyethyl methacrylate

H317 - May cause an allergic skin reaction.

H319 - Causes serious eye irritation.

Butyl methacrylate

H226 - Flammable liquid and vapour.

H315 - Causes skin irritation.

H317 - May cause an allergic skin reaction.

H335 - May cause respiratory irritation.

Uses covered for this mixture under REACH Consolidated from the exposure scenarios of the substances present in this mixture						
No.	Short Title	Sector of Use (SU)	Product Category (PC)	Process Category (PROC)	Environmental Release Category (ERC)	Risk Management Measures/ Operational Conditions (RMM/OC)
1	Formulation & (re)packing of substances and mixtures	SU3		PROC1 PROC2 PROC3 PROC4 PROC5 PROC8a PROC8b PROC9 PROC14 PROC15	ERC2	Included in Section 8 of this SDS
2	Industrial application of coatings and inks	SU3		PROC1 PROC2 PROC3 PROC4 PROC5 PROC7 PROC8a PROC8b PROC10 PROC13 PROC15	ERC4	Available on request*
3	Professional application of coatings and inks	SU22		PROC1 PROC2 PROC3 PROC4 PROC5 PROC8a PROC8b PROC10 PROC11 PROC13 PROC15 PROC19	ERC8a ERC8d	Available on request*
4	Consumer application of coatings and inks	SU21	PC1 PC4 PC8 PC9a PC9b PC9c PC15 PC18 PC23 PC24 PC31 PC34		ERC8a ERC8d	Available on request*

* Contact ALLNEX (PSRA-customer-requests@allnex.com) for detailed Exposure Scenario information on the substances present in this mixture.

Prepared By: Product Stewardship & Regulatory Affairs Department, <http://www.allnex.com/contact>

This information is given without any warranty or representation. We do not assume any legal responsibility for same, nor do we give permission, inducement, or recommendation to practice any patented invention without a license. It is offered solely for your consideration, investigation, and verification. Before using any product, read its label.
