SAFETY DATA SHEET

1. Identification

Product identifier **2K QUICK SAND PRIMER ACTIVATOR**

Other means of identification

Product Code MA-2K-QT

Recommended use Automotive Refinish Hardener/Activator

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name VALSPAR Automotive

Address 600 Nova Drive SE
Massillon, Ohio 44646
United States

Telephone General Assistance 330-299-8879

Website www.valsparauto.com

E-mail RON.ANDRUS@valspar.com

Contact person Ronald Andrus

Emergency phone number CHEMTREC 800-424-9300

2. Hazard(s) identification

Physical hazards	Flammable liquids	Category 2
Health hazards	Acute toxicity, oral	Category 4
	Acute toxicity, inhalation	Category 3
	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2A
	Sensitization, respiratory	Category 1
	Sensitization, skin	Category 1
	Carcinogenicity	Category 2
	Reproductive toxicity	Category 2
	Specific target organ toxicity, single exposure	Category 3 narcotic effects
	Specific target organ toxicity, repeated exposure	Category 1
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 2
	Hazardous to the aquatic environment, long-term hazard	Category 2

OSHA defined hazards Not classified.

Label elements

Signal word Danger

Hazard statement Highly flammable liquid and vapor. Harmful if swallowed. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. Toxic if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause drowsiness or dizziness. Suspected of causing cancer. Suspected of damaging fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure. Toxic to aquatic life. Toxic to aquatic life with long lasting effects.

Precautionary statement

Prevention	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe mist or vapor. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Contaminated work clothing must not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. In case of inadequate ventilation wear respiratory protection.
Response	If swallowed: Call a poison center/doctor if you feel unwell. Rinse mouth. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation or rash occurs: Get medical advice/attention. If inhaled: Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a poison center/doctor. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. Call a poison center/doctor. Take off contaminated clothing and wash before reuse. In case of fire: Use appropriate media to extinguish. Collect spillage.
Storage	Store in a well-ventilated place. Keep container tightly closed. Store in a well-ventilated place. Keep cool. Store locked up.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)	Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and vapor. May cause flash fire or explosion.
Supplemental information	47.52% of the mixture consists of component(s) of unknown acute oral toxicity. 68.25% of the mixture consists of component(s) of unknown acute inhalation toxicity. 52.35% of the mixture consists of component(s) of unknown acute hazards to the aquatic environment. 52.35% of the mixture consists of component(s) of unknown long-term hazards to the aquatic environment.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Toluene		108-88-3	26.94
1-Methoxy-2-propyl acetate		108-65-6	22.1
homopolymer of HDI		28182-81-2	11.04
n-butyl acetate		123-86-4	10.63
Xylene		1330-20-7	6.85
ethyl acetate		141-78-6	4.83
Ethyl benzene		100-41-4	2.98
Cumene		98-82-8	0.1
2,4-toluene diisocyanate		584-84-9	0.08
1,6-Diisocyanatohexane		822-06-0	0.06
2,6-toluene diisocyanate		91-08-7	0.02
benzene		71-43-2	0.001
Other components below reportable levels			14.380003

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a POISON CENTER or doctor/physician.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions. Wash contaminated clothing before reuse.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Get medical advice/attention if you feel unwell.

Most important symptoms/effects, acute and delayed	May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Difficulty in breathing. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash. Prolonged exposure may cause chronic effects.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
General information	Take off all contaminated clothing immediately. IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Alcohol resistant foam. Carbon dioxide (CO_2). Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
Unsuitable extinguishing media	Water. Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. This product is a poor conductor of electricity and can become electrostatically charged. If sufficient charge is accumulated, ignition of flammable mixtures can occur. To reduce potential for static discharge, use proper bonding and grounding procedures. This liquid may accumulate static electricity when filling properly grounded containers. Static electricity accumulation may be significantly increased by the presence of small quantities of water or other contaminants. Material will float and may ignite on surface of water. During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	Highly flammable liquid and vapor.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Use appropriate containment to avoid environmental contamination. Transfer by mechanical means such as vacuum truck to a salvage tank or other suitable container for recovery or safe disposal. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Take precautionary measures against static discharge. Use only non-sparking tools. Prevent entry into waterways, sewer, basements or confined areas. Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water. Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Use appropriate containment to avoid environmental contamination.

7. Handling and storage

Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Explosion-proof general and local exhaust ventilation. Minimize fire risks from flammable and combustible materials (including combustible dust and static accumulating liquids) or dangerous reactions with incompatible materials. Handling operations that can promote accumulation of static charges include but are not limited to: mixing, filtering, pumping at high flow rates, splash filling, creating mists or sprays, tank and container filling, tank cleaning, sampling, gauging, switch loading, vacuum truck operations. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Do not breathe mist or vapor. Do not taste or swallow. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. When using, do not eat, drink or smoke. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices.

For additional information on equipment bonding and grounding, refer to the Canadian Electrical Code in Canada, (CSA C22.1), or the American Petroleum Institute (API) Recommended Practice 2003, "Protection Against Ignitions Arising out of Static, Lightning, and Stray Currents" or National Fire Protection Association (NFPA) 77, "Recommended Practice on Static Electricity" or National Fire Protection Association (NFPA) 70, "National Electrical Code".

Conditions for safe storage, including any incompatibilities

Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Eliminate sources of ignition. Avoid spark promoters. Ground/bond container and equipment. These alone may be insufficient to remove static electricity. Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Components	Type	Value
benzene (CAS 71-43-2)	STEL	5 ppm
	TWA	1 ppm

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
2,4-toluene diisocyanate (CAS 584-84-9)	Ceiling	0.14 mg/m3
		0.02 ppm
Cumene (CAS 98-82-8)	PEL	245 mg/m3
		50 ppm
ethyl acetate (CAS 141-78-6)	PEL	1400 mg/m3
		400 ppm
Ethyl benzene (CAS 100-41-4)	PEL	435 mg/m3
		100 ppm
n-butyl acetate (CAS 123-86-4)	PEL	710 mg/m3
		150 ppm
Xylene (CAS 1330-20-7)	PEL	435 mg/m3
		100 ppm

US. OSHA Table Z-2 (29 CFR 1910.1000)

Components	Type	Value
benzene (CAS 71-43-2)	Ceiling	25 ppm
	TWA	10 ppm
Toluene (CAS 108-88-3)	Ceiling	300 ppm
	TWA	200 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
1,6-Diisocyanatohexane (CAS 822-06-0)	TWA	0.005 ppm
2,4-toluene diisocyanate (CAS 584-84-9)	STEL	0.02 ppm
	TWA	0.005 ppm
2,6-toluene diisocyanate (CAS 91-08-7)	STEL	0.02 ppm
	TWA	0.005 ppm
benzene (CAS 71-43-2)	STEL	2.5 ppm
	TWA	0.5 ppm
Cumene (CAS 98-82-8)	TWA	50 ppm
ethyl acetate (CAS 141-78-6)	TWA	400 ppm
Ethyl benzene (CAS 100-41-4)	TWA	20 ppm
n-butyl acetate (CAS 123-86-4)	STEL	200 ppm
	TWA	150 ppm
Toluene (CAS 108-88-3)	TWA	20 ppm
Xylene (CAS 1330-20-7)	STEL	150 ppm
	TWA	100 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
1,6-Diisocyanatohexane (CAS 822-06-0)	Ceiling	0.14 mg/m3
		0.02 ppm
	TWA	0.035 mg/m3
		0.005 ppm
benzene (CAS 71-43-2)	STEL	1 ppm
	TWA	0.1 ppm
Cumene (CAS 98-82-8)	TWA	245 mg/m3
		50 ppm
ethyl acetate (CAS 141-78-6)	TWA	1400 mg/m3
		400 ppm
Ethyl benzene (CAS 100-41-4)	STEL	545 mg/m3
		125 ppm
	TWA	435 mg/m3
		100 ppm
n-butyl acetate (CAS 123-86-4)	STEL	950 mg/m3
		200 ppm
	TWA	710 mg/m3
		150 ppm
Toluene (CAS 108-88-3)	STEL	560 mg/m3
		150 ppm
	TWA	375 mg/m3
		100 ppm

US. Workplace Environmental Exposure Level (WEEL) Guides

Components	Type	Value
1-Methoxy-2-propyl acetate (CAS 108-65-6)	TWA	50 ppm

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
benzene (CAS 71-43-2)	25 µg/g	S-Phenylmercapturic acid	Creatinine in urine	*

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
Ethyl benzene (CAS 100-41-4)	0.15 g/g	Sum of mandelic acid and phenylglyoxylic acid	Creatinine in urine	*
Toluene (CAS 108-88-3)	0.3 mg/g	o-Cresol, with hydrolysis	Creatinine in urine	*
	0.03 mg/l	Toluene	Urine	*
	0.02 mg/l	Toluene	Blood	*
Xylene (CAS 1330-20-7)	1.5 g/g	Methylhippuric acids	Creatinine in urine	*

* - For sampling details, please see the source document.

Exposure guidelines

US - California OELs: Skin designation

1-Methoxy-2-propyl acetate (CAS 108-65-6)	Can be absorbed through the skin.
benzene (CAS 71-43-2)	Can be absorbed through the skin.
Cumene (CAS 98-82-8)	Can be absorbed through the skin.
Toluene (CAS 108-88-3)	Can be absorbed through the skin.

US - Minnesota Haz Subs: Skin designation applies

Cumene (CAS 98-82-8)	Skin designation applies.
Toluene (CAS 108-88-3)	Skin designation applies.

US - Tennessee OELs: Skin designation

Cumene (CAS 98-82-8)	Can be absorbed through the skin.

US ACGIH Threshold Limit Values: Skin designation

benzene (CAS 71-43-2)	Can be absorbed through the skin.

US NIOSH Pocket Guide to Chemical Hazards: Skin designation

Cumene (CAS 98-82-8)	Can be absorbed through the skin.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Cumene (CAS 98-82-8)	Can be absorbed through the skin.

Appropriate engineering controls Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.

Other Wear appropriate chemical resistant clothing.

Respiratory protection Wear positive pressure self-contained breathing apparatus (SCBA).

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations Observe any medical surveillance requirements. When using do not smoke. Keep away from food and drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

9. Physical and chemical properties

Appearance

Physical state Liquid.

Form Liquid.

Color Light yellow to dark yellow.

Odor Solvent.

Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	-138.82 °F (-94.9 °C) estimated
Initial boiling point and boiling range	231.08 °F (110.6 °C) estimated
Flash point	40.0 °F (4.4 °C) estimated
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	1.3 % estimated
Flammability limit - upper (%)	7.5 % estimated
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	20.62 hPa estimated
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	797 °F (425 °C) estimated
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Density	8.08 lbs/gal
Explosive properties	Not explosive.
Flammability class	Flammable IB estimated
Oxidizing properties	Not oxidizing.
Percent volatile	74.43 %
Specific gravity	0.97
VOC	6 lbs/gal Regulatory 6 lbs/gal Material 721 g/l Regulatory 721 g/l Material

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Strong acids. Strong oxidizing agents. Nitrates. Halogens.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Toxic if inhaled. May cause damage to organs through prolonged or repeated exposure by inhalation. May cause drowsiness and dizziness. Headache. Nausea, vomiting. May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin contact	Causes skin irritation. May cause an allergic skin reaction.

Eye contact	Causes serious eye irritation.
Ingestion	Harmful if swallowed.
Symptoms related to the physical, chemical and toxicological characteristics	May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Difficulty in breathing. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.

Information on toxicological effects

Acute toxicity Toxic if inhaled. Harmful if swallowed. Narcotic effects. May cause an allergic skin reaction.

Components	Species	Test Results
1,6-Diisocyanatohexane (CAS 822-06-0)		
Acute		
Dermal		
LD50	Rabbit	593 mg/kg
Inhalation		
LC50	Mouse	0.03 mg/l, 2 Hours
	Rat	40 mg/l, 1 Hours
		22 mg/l, 4 Hours
		0.385 mg/l, 6 Hours
Oral		
LD50	Mouse	1980 mg/kg
	Rat	960 mg/kg
2,4-toluene diisocyanate (CAS 584-84-9)		
Acute		
Inhalation		
LC50	Guinea pig	13 mg/l, 4 Hours
	Mouse	10 mg/l, 4 Hours
	Rabbit	11 mg/l
	Rat	14 mg/l, 4 Hours
Oral		
LD50	Rat	5800 mg/kg
2,6-toluene diisocyanate (CAS 91-08-7)		
Acute		
Inhalation		
LC50	Guinea pig	90.4 mg/l, 4 Hours
	Mouse	69.1 mg/l, 4 Hours
	Rabbit	0.0783 mg/l, 4 Hours
	Rat	0.3489 mg/l, 4 Hours
		0.057 mg/l, 1 Hours
Oral		
LD50	Mouse	1950 mg/kg
	Rat	3060 mg/kg
benzene (CAS 71-43-2)		
Acute		
Inhalation		
LC50	Mouse	9980 ppm
	Rat	10000 ppm, 7 Hours
Oral		
LD50	Mouse	4700 mg/kg
	Rat	3306 mg/kg

Components	Species	Test Results
Cumene (CAS 98-82-8)		
Acute		
Inhalation		
LC50	Mouse	2000 ppm, 7 Hours
		24.7 mg/l, 2 Hours
	Rat	8000 ppm, 4 Hours
Oral		
LD50	Rat	1400 mg/kg
ethyl acetate (CAS 141-78-6)		
Acute		
Inhalation		
LC50	Rat	16000 ppm, 6 Hours
LD50	Mouse	1500 ppm, 4 Hours
	Rabbit	2500 ppm, 4 Hours
	Rat	4000 ppm, 4 Hours
Oral		
LD50	Mouse	0.44 g/kg
	Rabbit	4.9 g/kg
	Rat	11.3 ml/kg
		5.6 g/kg
Ethyl benzene (CAS 100-41-4)		
Acute		
Dermal		
LD50	Rabbit	17800 mg/kg
Oral		
LD50	Rat	3500 mg/kg
n-butyl acetate (CAS 123-86-4)		
Acute		
Inhalation		
LC50	Wistar rat	160 mg/l, 4 Hours
Oral		
LD50	Rat	14000 mg/kg
Toluene (CAS 108-88-3)		
Acute		
Dermal		
LD50	Rabbit	12124 mg/kg
		14.1 ml/kg
Inhalation		
LC50	Mouse	5320 ppm, 8 Hours
		400 ppm, 24 Hours
	Rat	26700 ppm, 1 Hours
		12200 ppm, 2 Hours
		8000 ppm, 4 Hours
Oral		
LD50	Rat	2.6 g/kg
Xylene (CAS 1330-20-7)		
Acute		
Dermal		
LD50	Rabbit	> 43 g/kg

Components	Species	Test Results
Inhalation		
LC50	Mouse	3907 mg/l, 6 Hours
	Rat	6350 mg/l, 4 Hours
Oral		
LD50	Mouse	1590 mg/kg
	Rat	3523 - 8600 mg/kg

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/eye irritation Causes serious eye irritation.

Respiratory or skin sensitization

ACGIH sensitization

2,4-toluene diisocyanate (CAS 584-84-9)	Sensitizer.
2,6-toluene diisocyanate (CAS 91-08-7)	Sensitizer.

Respiratory sensitization May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Skin sensitization May cause an allergic skin reaction.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity Suspected of causing cancer.

IARC Monographs. Overall Evaluation of Carcinogenicity

2,4-toluene diisocyanate (CAS 584-84-9)	2B Possibly carcinogenic to humans.
2,6-toluene diisocyanate (CAS 91-08-7)	2B Possibly carcinogenic to humans.
benzene (CAS 71-43-2)	1 Carcinogenic to humans.
Cumene (CAS 98-82-8)	2B Possibly carcinogenic to humans.
Ethyl benzene (CAS 100-41-4)	2B Possibly carcinogenic to humans.
Toluene (CAS 108-88-3)	3 Not classifiable as to carcinogenicity to humans.
Xylene (CAS 1330-20-7)	3 Not classifiable as to carcinogenicity to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

benzene (CAS 71-43-2)	Cancer

US. National Toxicology Program (NTP) Report on Carcinogens

2,4-toluene diisocyanate (CAS 584-84-9)	Reasonably Anticipated to be a Human Carcinogen.
2,6-toluene diisocyanate (CAS 91-08-7)	Reasonably Anticipated to be a Human Carcinogen.
benzene (CAS 71-43-2)	Known To Be Human Carcinogen.
Cumene (CAS 98-82-8)	Reasonably Anticipated to be a Human Carcinogen.

Reproductive toxicity Components in this product have been shown to cause birth defects and reproductive disorders in laboratory animals. Suspected of damaging fertility or the unborn child.

Specific target organ toxicity - single exposure May cause drowsiness and dizziness.

Specific target organ toxicity - repeated exposure Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard Not an aspiration hazard.

Chronic effects Causes damage to organs through prolonged or repeated exposure. Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.

12. Ecological information

Ecotoxicity Toxic to aquatic life with long lasting effects.

Components		Species	Test Results
2,4-toluene diisocyanate (CAS 584-84-9)			
Aquatic			
Fish	LC50	Fathead minnow (Pimephales promelas)	108.8 - 240.4 mg/l, 96 hours
benzene (CAS 71-43-2)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	8.76 - 15.6 mg/l, 48 hours

Components		Species	Test Results
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	7.2 - 11.7 mg/l, 96 hours
Cumene (CAS 98-82-8)			
Aquatic			
Crustacea	EC50	Brine shrimp (Artemia sp.)	3.55 - 11.29 mg/l, 48 hours
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	2.7 mg/l, 96 hours
ethyl acetate (CAS 141-78-6)			
Aquatic			
Fish	LC50	Indian catfish (Heteropneustes fossilis)	200.32 - 225.42 mg/l, 96 hours
Ethyl benzene (CAS 100-41-4)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	1.37 - 4.4 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	7.5 - 11 mg/l, 96 hours
n-butyl acetate (CAS 123-86-4)			
Aquatic			
Fish	LC50	Fathead minnow (Pimephales promelas)	17 - 19 mg/l, 96 hours
Toluene (CAS 108-88-3)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	5.46 - 9.83 mg/l, 48 hours
Fish	LC50	Coho salmon,silver salmon (Oncorhynchus kisutch)	8.11 mg/l, 96 hours
Xylene (CAS 1330-20-7)			
Aquatic			
Fish	LC50	Bluegill (Lepomis macrochirus)	7.711 - 9.591 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)	
benzene	2.13
Cumene	3.66
ethyl acetate	0.73
Ethyl benzene	3.15
n-butyl acetate	1.78
Toluene	2.73
Xylene	3.12 - 3.2

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

UN number	UN1263
UN proper shipping name	Paint, Paint Related Material
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Label(s)	3
Packing group	II
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Special provisions	IB2, T7, TP1, TP8, TP28
Packaging exceptions	150
Packaging non bulk	202
Packaging bulk	242

IATA

UN number	UN1263
UN proper shipping name	Paint, Paint Related Material
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Packing group	II
Environmental hazards	Yes
ERG Code	3H
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Other information	
Passenger and cargo aircraft	Allowed with restrictions.
Cargo aircraft only	Allowed with restrictions.

IMDG

UN number	UN1263
UN proper shipping name	Paint, Paint Related Material, MARINE POLLUTANT
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Packing group	II
Environmental hazards	
Marine pollutant	Yes
EmS	F-E, S-E
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not established.

DOT

IATA; IMDG

Marine pollutant

General information IMDG Regulated Marine Pollutant.

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

2,4-toluene diisocyanate (CAS 584-84-9)	0.1 % One-Time Export Notification only.
2,6-toluene diisocyanate (CAS 91-08-7)	0.1 % One-Time Export Notification only.

TSCA Chemical Action Plans, Chemicals of Concern

2,4-toluene diisocyanate (CAS 584-84-9)	Toluene Diisocyanate (TDI) And Related Compounds Action Plan [RIN 2070-ZA14]
2,6-toluene diisocyanate (CAS 91-08-7)	Toluene Diisocyanate (TDI) And Related Compounds Action Plan [RIN 2070-ZA14]

CERCLA Hazardous Substance List (40 CFR 302.4)

1,6-Diisocyanatohexane (CAS 822-06-0)	Listed.
2,4-toluene diisocyanate (CAS 584-84-9)	Listed.
2,6-toluene diisocyanate (CAS 91-08-7)	Listed.
benzene (CAS 71-43-2)	Listed.
Cumene (CAS 98-82-8)	Listed.
ethyl acetate (CAS 141-78-6)	Listed.
Ethyl benzene (CAS 100-41-4)	Listed.
n-butyl acetate (CAS 123-86-4)	Listed.
Toluene (CAS 108-88-3)	Listed.
Xylene (CAS 1330-20-7)	Listed.

SARA 304 Emergency release notification

2,4-toluene diisocyanate (CAS 584-84-9)	100 LBS
2,6-toluene diisocyanate (CAS 91-08-7)	100 LBS

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

benzene (CAS 71-43-2)	Cancer Central nervous system Blood Aspiration Skin Eye respiratory tract irritation Flammability

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes
Delayed Hazard - Yes
Fire Hazard - Yes
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Chemical name	CAS number	Reportable quantity	Threshold planning quantity	Threshold planning quantity, lower value	Threshold planning quantity, upper value
2,4-toluene diisocyanate	584-84-9	100	500 lbs		
2,6-toluene diisocyanate	91-08-7	100	100 lbs		

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
Toluene	108-88-3	26.94
Xylene	1330-20-7	6.85
Ethyl benzene	100-41-4	2.98

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

1,6-Diisocyanatohexane (CAS 822-06-0)
2,4-toluene diisocyanate (CAS 584-84-9)
benzene (CAS 71-43-2)
Cumene (CAS 98-82-8)
Ethyl benzene (CAS 100-41-4)
Toluene (CAS 108-88-3)
Xylene (CAS 1330-20-7)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

2,4-toluene diisocyanate (CAS 584-84-9)
2,6-toluene diisocyanate (CAS 91-08-7)

Safe Drinking Water Act (SDWA) Not regulated.

Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number

Toluene (CAS 108-88-3) 6594

Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

Toluene (CAS 108-88-3) 35 %WV

DEA Exempt Chemical Mixtures Code Number

Toluene (CAS 108-88-3) 594

FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace

ethyl acetate (CAS 141-78-6) Low priority
n-butyl acetate (CAS 123-86-4) Low priority

US state regulations

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not listed.

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

1,6-Diisocyanatohexane (CAS 822-06-0)
2,4-toluene diisocyanate (CAS 584-84-9)
2,6-toluene diisocyanate (CAS 91-08-7)
benzene (CAS 71-43-2)
Cumene (CAS 98-82-8)
Ethyl benzene (CAS 100-41-4)
Toluene (CAS 108-88-3)
Xylene (CAS 1330-20-7)

US. Massachusetts RTK - Substance List

1,6-Diisocyanatohexane (CAS 822-06-0)

2,4-toluene diisocyanate (CAS 584-84-9)
2,6-toluene diisocyanate (CAS 91-08-7)
benzene (CAS 71-43-2)
Cumene (CAS 98-82-8)
ethyl acetate (CAS 141-78-6)
Ethyl benzene (CAS 100-41-4)
n-butyl acetate (CAS 123-86-4)
Toluene (CAS 108-88-3)
Xylene (CAS 1330-20-7)

US. New Jersey Worker and Community Right-to-Know Act

1,6-Diisocyanatohexane (CAS 822-06-0)
2,4-toluene diisocyanate (CAS 584-84-9)
2,6-toluene diisocyanate (CAS 91-08-7)
benzene (CAS 71-43-2)
Cumene (CAS 98-82-8)
ethyl acetate (CAS 141-78-6)
Ethyl benzene (CAS 100-41-4)
n-butyl acetate (CAS 123-86-4)
Toluene (CAS 108-88-3)
Xylene (CAS 1330-20-7)

US. Pennsylvania Worker and Community Right-to-Know Law

2,4-toluene diisocyanate (CAS 584-84-9)
2,6-toluene diisocyanate (CAS 91-08-7)
benzene (CAS 71-43-2)
Cumene (CAS 98-82-8)
ethyl acetate (CAS 141-78-6)
Ethyl benzene (CAS 100-41-4)
n-butyl acetate (CAS 123-86-4)
Toluene (CAS 108-88-3)
Xylene (CAS 1330-20-7)

US. Rhode Island RTK

1,6-Diisocyanatohexane (CAS 822-06-0)
2,4-toluene diisocyanate (CAS 584-84-9)
2,6-toluene diisocyanate (CAS 91-08-7)
benzene (CAS 71-43-2)
Cumene (CAS 98-82-8)
ethyl acetate (CAS 141-78-6)
Ethyl benzene (CAS 100-41-4)
n-butyl acetate (CAS 123-86-4)
Toluene (CAS 108-88-3)
Xylene (CAS 1330-20-7)

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

2,4-toluene diisocyanate (CAS 584-84-9)	Listed: October 1, 1989
2,6-toluene diisocyanate (CAS 91-08-7)	Listed: October 1, 1989
benzene (CAS 71-43-2)	Listed: February 27, 1987
Cumene (CAS 98-82-8)	Listed: April 6, 2010
Ethyl benzene (CAS 100-41-4)	Listed: June 11, 2004

US - California Proposition 65 - CRT: Listed date/Developmental toxin

benzene (CAS 71-43-2)	Listed: December 26, 1997
Toluene (CAS 108-88-3)	Listed: January 1, 1991

US - California Proposition 65 - CRT: Listed date/Female reproductive toxin

Toluene (CAS 108-88-3)	Listed: August 7, 2009

US - California Proposition 65 - CRT: Listed date/Male reproductive toxin

benzene (CAS 71-43-2)	Listed: December 26, 1997

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	No

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 12-07-2015

Version # 01

HMIS® ratings Health: 3*
Flammability: 3
Physical hazard: 0

NFPA ratings Health: 3
Flammability: 3
Instability: 0

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Revision information Product and Company Identification: Product and Company Identification
Composition/information on ingredients: Composition comments
Composition/information on ingredients: Component information
Fire-fighting measures: Suitable extinguishing media
Exposure controls/personal protection: General hygiene considerations
Physical & Chemical Properties: Multiple Properties
Physical and chemical properties: Oxidizing properties
Physical and chemical properties: Explosive properties
Ecological information: Persistence / degradability
Regulatory information: US federal regulations
Other information, including date of preparation or last revision: Further information