SAFETY DATA SHEET

Section 1- Product and Company Information

Product Name: EXPRESS HARDENER Product Code: MCR-6006

MOTOR CITY REFINISH
27100 Hall Road
Flat Rock, MI 48134

MOTOR CITY REFINISH
Phone: 313-636-2414

24 HOUR EMERGENCY
CHEMTREC: 20307
1-800-424-9300

Section 2- Hazards Identification

GHS Ratings:

Flammable liquid	3	Flash point >= 23°C and <= 60°C (140°F)
Skin corrosive	2	Reversible adverse effects in dermal tissue, Draize score: >= 2.3 < 4.0 or persistent inflammation
Eye corrosive	2A	Eye irritant: Subcategory 2A, Reversible in 21 days
Respiratory sensitizer	1	Respiratory sensitizer
Skin sensitizer	1	Skin sensitizer
Mutagen	1B	Known to produce heritable mutations in human germ cellsSubcategory 1B, Positive results: In vivo heritable germ cell tests in mammals, Human germ cell tests, In vivo somatic mutagenicity tests, combined with some evidence of germ cell mutagenicity
Carcinogen	1B	Presumed Human Carcinogen, Based on demonstrated animal carcinogenicity
Reproductive toxin	2	Human or animal evidence possibly with other information

GHS Hazards

H226	Flammable liquid and vapour
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H340	May cause genetic defects
H350	May cause cancer
H361	Suspected of damaging fertility or the unborn child

GHS Precautions

P201	Obtain special instructions before use
P202	Do not handle until all safety precautions have been read and understood
P210	Keep away from heat/sparks/open flames/hot surfaces – No smoking
P233	Keep container tightly closed
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
P261	Avoid breathing dust/fume/gas/mist/vapours/spray
P264	Wash … thoroughly after handling
P272	Contaminated work clothing should not be allowed out of the workplace
P280	Wear protective gloves/protective clothing/eye protection/face protection
P281	Use personal protective equipment as required
P285	In case of inadequate ventilation wear respiratory protection
P321	Specific treatment (see … on this label)
P362	Take off contaminated clothing and wash before reuse
P363	Wash contaminated clothing before reuse
P302+P352	If on skin: Wash with plenty of soap and water for 15 minutes.
P303+P361+P353	If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P341	IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing
P305+P351+P338	If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P308+P313	IF exposed or concerned: Get medical advice/attention
P332+P313	If skin irratation occurs: Get medical advice/ attention
P333+P313	If skin irritation or a rash occurs: Get medical advice/attention
P337+P313	If eye irratation persists: Get medical advice/attention
P342+P311	Call a POISON CENTER or doctor/physician
P370+P378	In case of fire: Use ABC-powder, alcohol resistant foam, carbon dioxide (CO2), dry extinguishing powder to extinguish
P405	Store locked up
P403+P235	Store in a well ventilated place. Keep cool
P501	Dispose of contents/container to and unused product in accordance with existing federal, state and local government regulations

Signal Word: Danger

GHS label elements

Section 3- Composition/Infromation on Ingredients

Chemical Name	CAS number	Weight Concentration %
POLY(HEXAMETHYLENE DIISOCYANATE)	28182-81-2	50.00% - 60.00%
n-Butyl Acetate	123-86-4	40.00% - 50.00%
Mineral Spirits	64742-95-6	1.00% - 5.00%
1,2,4-Trimethylbenzene	95-63-6	1.00% - 5.00%
CUMENE	98-82-8	0.10% - 1.00%

Any concentration shown as a range is to protect confidentiality or is due to batch variation.
There are no additional ingredients present which, within the curren knowledge of the supplier and in the concentration applicable, are classified as hzardous to health or the environment and hence require reporting in this section.

Section 4- First Aid Measures

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing

IF INHALED: Call a POISON CENTER or doctor/physician if you feel unwell
IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing
Get immediate medical advice/attention
IF ON SKIN: Gently wash with soap and water
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
Do NOT induce vomiting

Section 5- Fire Fighting Measures

Flash Point: 27 C (81 F)

LEL: UEL:

Extinguising Media:
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide
Unusual Fire and Explosion Hazards:
Vapors are heaver than air and may travel along the ground or may be moved by ventilation.

Fire Fighting Procedures:
Wear fire/flame resistant/retardant clothing
Wear self contained respiratory protection

Section 6- Accidental Release Measures

Personal precautions, protective equipment and emergency procedures:

For non-emergency personal: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For nonemergency personnel".

Enviromental Precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Small Spill:

Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large Spill:

Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7- Handling and Storage

Precautions for safe handling:

Protective measures: Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Special Precautions: Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Vapors are heavier than air and may spread along floors. If this material is part of a multiple component system, read the Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts.

Occupational Hygiene: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Storage Considerations:
Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination

Section 8- Exposure Control and Personal Protection

Chemical Name / CAS No.	OSHA Exposure Limits	ACGIH Exposure Limits	Other Exposure Limits
POLY(HEXAMETHYLENE DIISOCYANATE) 28182-81-2	Not Established	Not Established	Not Established
n-Butyl Acetate 123-86-4	(Vacated)TWA:150 ppm (Vacated)TWA:710 mg/m3 (Vacated) STEL: 200 ppm (Vacated) STEL: 950mg/m3 TWA: 150 ppm TWA: 710 mg/m3	TWA:150 ppm STEL: 200 ppm	Not Established
Mineral Spirits 64742-95-6	Not Established	Not Established	Not Established
1,2,4-Trimethylbenzene 95-63-6	TWA 25.000000 ppm 125.000000 mg/m3 USA. NIOSH Recommended Exposure Limits Remarks hemimellitene is a mixture of the 1,2,3-isomer with up to 10% of related aromatics such as the 1,2,4-isomer.	TWA 25 ppm USA. ACGIH Threshold Limit Values (TLV) Central Nervous System impairment Hematologic effects Asthma	Not Established

CUMENE 98-82-8	TWA 50.000000 ppm 245.000000 mg/m3 USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants Skin designation. The value in mg/m3 is approximate	TWA 50.000000 ppm USA. ACGIH Threshold Limit Values (TLV) Remarks Central Nervous System impairment Upper Respiratory Tract irritation Eye irritation Skin irritation	TWA 50.000000 ppm 245.000000 mg/m3 USA. NIOSH Recommended Exposure Limits Potential for dermal absorption

Recommended Monitoring Procedures: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Appropriate Engineeing Controls: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Enviromental Exposure Controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Ventilation:
In case of inadequate ventilation wear respiratory protection

Protective Measures:

Hygiene Measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection: Safety glasses with side shields

Hand Protection: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties . It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers . In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

For prolonged or repeated handling, use the following type of gloves:
Recommended: butyl rubber May be used: nitrile rubber, Chloroprene

Body Protection: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear antistatic protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Respiratory Protection: Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

Contaminated Gear:

Contaminated work clothing should not be allowed out of the workplace

Section 9- Physical and Chemical Properties

Properties based on formula calculations.

Vapor Density 4.00	**Boiling Range** 125 to 179 °C, 257 to 354 °F
VOC by Volume 47.29	**Specific Gravity (SG)** 1.028
Volume VOC 47.29	**Total VOC lb/gal:** 3.48
Total VOC gm/ltr: 417	

Section 10- Stability and Reactivity

Stability:

STABLE

Incompatibilities:

No Data Available

Hazardous Decomposition:

No Data Available

Hazardous polymerization will not occur.

Section 11- Toxicological Information

Mixture Toxicity

Component Toxicity

123-86-4	n-Butyl Acetate Inhalation LC50: 21 mg/L (RAT)
64742-95-6	Mineral Spirits Oral LD50: 2,000 mg/kg (rat) Dermal LD50: 2,000 mg/kg (rabbit) Inhalation LC50: 10 ppm (rat)
98-82-8	CUMENE Oral LD50: 1,400 mg/kg (rat)

Routes of Entry:

Inhalation Skin Contact Eye Contact Ingestion

Exposure to this material may affect the following organs:

Blood Eyes Lungs Central Nervous System Skin Respiratory System

Carcinogen:

CAS Number	Description	% Weight	Carcinogen Rating
98-82-8	CUMENE	.1 to 1.0%	CUMENE: IARC: 2B - Group 2B: Possibly carcinogenic to humans (Cumene) NTP: Reasonably anticipated to be a human carcinogen (Cumene) OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Acute Toxicity:

INHALATION- dizziness, breathing difficultly, headaches, and loss of coordination

EYE CONTACT- severe irritation, tearing, redness and blurred vision
SKIN CONTACT- can dry and defat skin causing cracks, irritation and dermititis
INGESTION- can cause gastrointestinal irritation, vomiting, nausea, and diarrhea
Pre-existing skin, eye and lung disorders may be aggravated. Personal susceptible to allergenic reaction should refrain from use

Section 12- Ecological Information

Prevent run-off to sewers, streams or other bodies of water. If run off occurs, notify proper authorities that spill has occured.

Component Ecotoxicity

POLY(HEXAMETHYLENE DIISOCYANATE)	No data available
n-Butyl Acetate	Do not empty into drains
Mineral Spirits	No data available
1,2,4-Trimethylbenzene	Toxicity to fish flow-through test LC50 - Pimephales promelas (fathead minnow) - 7.72 mg/l -96.0 h Toxicity to daphnia and other aquatic invertebrates static test EC50 - Daphnia magna (Water flea) - 3.6 mg/l - 48 h (OECD Test Guideline 202)
CUMENE	no information available

Section 13- Disposal Considerations

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
Dispose of contaminated material in accordance with Local, State, and Federal Regulations

Section 14- Transport Information

Agency	Proper Shipping Name	UN Number	Packing Group	Hazard Class
DOT	PAINT RELATED MATERIAL	1263	III	3
IATA	PAINT RELATED MATERIAL	1263	III	3
IMDG	PAINT RELATED MATERIAL	1263	III	3

Section 15- Regulatory Information:

Safety, health and enviromental regulations/legislation specific for the substance or mixture.:

Section 16- Other Information:

This information is provided without warranty. The information is believed to be correct. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied. This information should be used to make an independent determination of the methods to safeguard workers and the enviroment.

Date revised: 2019-09-30 Reviewer Revision

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