DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: On-site Inspection

N556173190

FACILITY: Sika Corporation - Industry		**SRN / ID:** N5561
LOCATION: 1611 HULTS DR, EATON RAPIDS		**DISTRICT:** Lansing
CITY: EATON RAPIDS		**COUNTY:** EATON
CONTACT: Tony Doremire , EHS Manager		**ACTIVITY DATE:** 08/20/2024
STAFF: Michelle Luplow	**COMPLIANCE STATUS:** Non Compliance	**SOURCE CLASS:** MINOR
SUBJECT: Onsite inspection to determine compliance with PTI 86-95 and Rule 201.		
RESOLVED COMPLAINTS:		

Inspected by: Michelle Luplow (author) and the AQD Permit Engineers (Lureen Al-Ostasz, Allan Terry, Kevin Villalta)

Personnel Present: Tony Doremire, EHS Manager (Doremire.tony@us.sika.com)

Greg Creighton, Plant Manager (Creighton.greg@us.sika.com)

Purpose

Conduct an unannounced, scheduled compliance inspection by determining compliance with Sika's Permit to Install (PTI) No. 86-95.

Facility Background/Regulatory Overview

Sika Corporation was previously named Axson Technologies. Sika Corp purchased Axson in April 2015. This facility was last inspected in 2015.

Sika manufactures industrial bondo for planes, wind blades, etc., as well as concrete additives and sealers for concrete and asphalt.

Sika operates 1 shift, 5 days per week.

Inspection

This was an unannounced, scheduled compliance inspection. On August 20, 2024, The AQD Permit Section staff and I arrived at Sika Corp and met with Tony Doremire and Greg Creighton. Safety vest, safety glasses, and steel toes are required.

During the inspection, G. Creighton and myself reviewed the list of equipment obtained during the last inspection and compared it to the list of equipment Sika Corp currently has on-site. Table 1 is a list of all permitted and unpermitted equipment, as determined at the inspection.

Table 1. Equipment located onsite.

EU	Description	PTI/ exemption	Control equipment	Installation Date

350 gal Myers Mixer #1	**Epoxy, polyester, urethane mixer**	**R 290**	**Torit dust collector**	**2013**
350 gal myers Mixer #2	**Epoxy, polyester, urethane mixer**	**86-95**	**Torit dust collector**	**1996**
150 gal Hockmeyer mixer		**86-95**	**Torit dust collector**	**1996**
16 gal J-Go Mixer		**86-95**	**Torit dust collector**	**1996**
Green 300 gal Ribbon Mixer		**86-95**	**Torit dust collector**	**1996**
25 HP Cowels Dissolver		**86-95**	**Torit dust collector**	**1996**
~~**30 HP Myers Cowels Dissolver**~~	**Emission Unit Removed from facility**	~~**86-95**~~	~~**Torit dust collector**~~	~~**1996**~~
2 Reactors, 120 gal	**Reaction vessels used to create isocyanates and hardeners; fumes from process are collected in a closed system of condensers and the condensed waste is disposed as hazardous waste**	**86-95**	**Torit dust collector**	**1996**
~~**2 Marion mixers, 160 gal**~~ ~~**Used for hardeners and resins**~~	**Emission Unit removed from the facility**	~~**R 290**~~	~~**Torit dust collector**~~	~~**2014**~~
2 Myers Mixers, 100 gal	**Epoxy, polyester, urethane mixers**	**R 290**	**Torit dust collector**	**2014**
2 Tumblers, 50 gal each	**Agitate sealed drums containing mixtures**	**R 290**	**NA**	**#1: 1998**

				#2: 2002
White APEC Ribbon mixer, 650 gal	Large polyester mixer	R 290	Torit dust collector	2014
Hockmeyer press	Dispenses finished material	R 290	NA	1997
~~Scott Ribbon Mixer 40 gal~~	Emission Unit Removed from facility	~~R 290~~	~~NA~~	~~2014~~
~~Euromix Emulsifier 50 – 400 gal~~	Emission Unit Removed from facility	~~86-95~~	~~NA~~	~~1996~~
Large APEC Ribbon Mixer, 800	Large polyester mixer	R 290	NA	2014
Small Myers Ram Press		86-95	NA	1996
Large Myers Ram Press		86-95	NA	1996
~~Hobart Mixer 28 gal~~	Emission Unit Removed from facility	~~86-95~~	~~NA~~	~~1996~~
~~General Ribbon Mixer, 80 gal~~	Emission Unit Removed from facility	~~R 290~~	~~NA~~	~~1997~~
Torit Downflo Dust Collector		R 285(2)(f)	NA	2014
Torit Dust Collector (small)		86-95	NA	1996
HeatPro Small Blue Oven	Electric – heats raw material	R 290	NA	1998
Lewco Double Blue Oven	Electric – heats raw material	R 290	NA	2012

~~Quincy 40 HP Air compressor~~	Emission Unit Removed from facility	~~TBD~~	~~NA~~	~~2012~~
Blue 300-gallon Paddle Mixer	Board Room Production	TBD	TBD	TBD
Large Hockmeyer Mixer	Board Room Production Making pastes for metal bonding	TBD	TBD	TBD
Large Hockmeyer Press	Board Room Production Makes pastes for metal bonding	TBD	TBD	TBD
Polyol and isocyanate Casting	Board Room Production For making tooling boards	TBD	TBD	TBD
Board mills/sanders	Board Room Production	TBD	TBD	TBD
Altendorf saw	Board Room Production	TBD	TBD	TBD

PTI No. 86-95 Process equipment to formulate polyester resin products and epoxy resin products and hardeners (storage tanks, pumps, mixers and blenders)

Sika's permitted processes are limited to 12.1 tons VOC per year. T. Doremire provided me with recordkeeping (attached) for VOC emissions from 2021 – 2023. Table 2 outlines the compliance check for VOC based on those records:

Table 2. VOC tpy Compliance Check

	VOC lbs	VOC tons	Compliance?
2021	99,817	49.9	No
2022	122,543	61.3	No

2023	111,752	55.9	No

According to the records provided, Sika appears to be in non-compliance with the yearly VOC emission limit of 12.1 tons per year. A violation notice will be sent to address these exceedances.

Sika is also limited in the amount of cleaning solvent they can use. The permitted limit is 10,000 gallons per 12-month rolling period and that a record must be kept of this usage. Sika was unable to provide records of cleaning solvent used per 12-month rolling period, and as such, Sika is in non-compliance with this condition. A violation notice will be sent to address this deficiency.

Rule 290

During the 2015 inspection, Sika noted that Rule 290 would be the appropriate exemption for each of the emission units listed below. T. Doremire provided me with a December 2023 "audit" provided by Cornerstone consulting firm, attached. This audit was an attempt to demonstrate that emission units located on-site were exempt from Rule 201; however, the demonstration was insufficient for demonstrating that these emission units are exempt (Rule 290/Rule 291 demonstrations were insufficient), and as such, a violation notice will be issued to address this deficiency.

- 350 gal Myers Mixer #1
- 2 Myers Mixers, 100 gal
- 2 Tumblers, 50 gal each
- White APEC Ribbon mixer, 650 gal
- Hockmeyer press
- Large APEC Ribbon Mixer, 800

Board Room Production

There have been numerous emission units installed at the facility since the last inspection in 2015. These additional emission units predominantly service the "Board Room" which is a room where polyol/isocyanate castings/boards are manufactured.

T. Doremire provided me with a December 2023 "audit" provided by Cornerstone consulting firm, attached. The document attempts to demonstrate that many emission units at the site do not need a permit and also attempts to provide exemption demonstrations. This document provides insufficient information for demonstrating the emission units listed below are exempt from Rule 201, and as such, I will be sending a letter requesting that exemption demonstrations be provided for each emission unit within 30 days from the date of the letter, as described in Rule 278a.

- Blue 300-gallon Paddle Mixer
- Large Hockmeyer Mixer
- Large Hockmeyer Press
- Polyol and isocyanate Casting
- Board mills/sanders
- Altendorf saw

Many of the Board Room emission units exhaust to a Torit Dust collector, which is housed outside, and which vents to ambient air. During the inspection, I noted pink particulate from the Board Room activities on the ground surrounding the dust collector, on the outside of the dust collector ductwork,

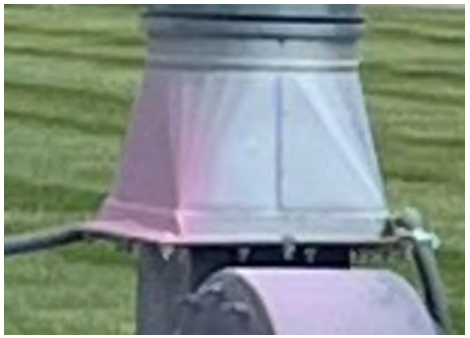
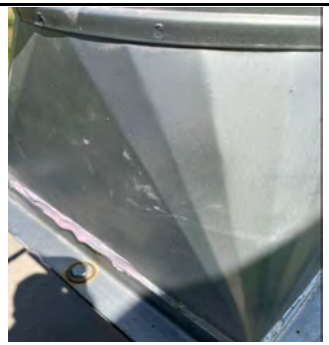
as well as from the waste container the dust collector is attached to. On August 23, 2024, T. Doremire provided me with "before" and "after" photos of the particulate clean-up (attached). All particulate was swept up from the ground. A crack was found in the dustwork leaving the baghouse; this was sealed with epoxy sealant. A seal was also installed on the waste container to prevent fugitive dust escaping. I will not be citing a violation for the insufficient capture and control of particulate at this time; however, future inspections should include ensuring that the fixes Sika instituted on August 23, 2024 are still ensuring that particulate from the Board Room is being controlled and captured properly.

Compliance Statement. Sika Corporation appears to be in non-compliance with PTI 86-95 and Rule 201 at this time. A violation notice will be issued to address these deficiencies.

NAME _____ DATE 9/26/24 SUPERVISOR RB

MICHIGAN EGLE SITE VISIT : Air Quality Division
RE: AIR PERMIT REVIEW : 08/20/24
MICHELLE LUPLOW, MPH

Board Room Dust Collection : Updated Pictures

	Vacuumed up all dust particulate and swept in front of collection unit. Seal added as remedial corrective action. Long term , 40 Yard roll off units will be modified with attached gasket so there is no dust escape during change out period or while in operation.	
	Reinstalled and added more seal to prevent escape of dust. Permanent seal to be added to inside of door so there is no delay in having a seal after a new roll off is delivered.	
	Crack found in duct housing sealed with clear epoxy sealant.	

Air Emissions Audit Report

Prepared for:

Sika Advanced Resins
1611 Hults Drive
Eaton Rapids, Michigan 48827

Prepared by:

Cornerstone Environmental, Health and Safety, Inc.
880 Lennox Court
Zionsville, Indiana 46077
Phone: (317) 733-2637
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December 18, 2023

Introduction

Sika Advanced Resins (Sika) contracted Cornerstone Environmental, Health and Safety, Inc. (Cornerstone) to examine the manufacturing operations and determine air quality emissions and to prepare an air emissions inventory. Cornerstone toured the Sika facility on October 15, 2023. Cornerstone gathered information on the existing operations and processes of the facility and took copies of SDS documents and other documents pertaining to operations and air emissions from the facility. This report summarizes Sika's manufacturing operations, estimates emissions from each type of operation, and discusses air permitting recommendations.

SIC Code:	2821, Plastics Materials, Synthetic Resins, and Nonvulcanizable Elastomers
NAICS Code:	325211, Plastics Material and Resin Manufacturing
County:	Eaton County
EGLE District Office:	Lansing District Office 525 West Allegan (Constitution Hall) P.O. Box 30242 Lansing, Michigan 48909-7742

Summary of Processes and Emitting Activities

Sika is a manufacturer of resins, coatings and epoxies for the construction and building industry. The Eaton Rapids, MI facility mixes and produces various resins and coatings. Sika also manufactures ISO panels through the combination of polyol and isocyanate mixtures The following operations and processes are currently performed at Sika:

- Resin and Epoxy Mixing and Reactors
- Board Production Sawing and Sanding Operation
- Laboratory Testing
- Maintenance Degreasing
- Cleaning Operations

These activities have the potential to produce regulated air pollutants. Cornerstone examined each operation and prepared an emissions audit to characterize emissions from each operation. The following sections discuss each type of operation present at the Sika facility and summarize how emissions have been estimated. Calculation estimates are included in Appendix A.

Resin and Epoxy Mixing
Sika has nine (9) large mixers with volume capacities from 95 to 450 gallons. Sika also has two hot oil-jacketed reactor vessels to prepare various resins and compounds. Chemicals and compounds are added to individual mixers or reactors, covered, and then mixed for various batch times. Hoods over each mixer and reactor vent to one of two hood systems. The finished products are then transferred to dispensing equipment and packaged. The two hood systems each control PM emissions from the mixing and reaction processes by a dust collector. Volatile organic compound (VOC) emissions are not controlled.

Michigan EGLE guidelines identify each mixer and reactor as an individual emission unit. Even though each mixer and reactor have emissions that pass to one of two common baghouses, each mixer or reactor are considered an emission unit. The two hood and baghouse systems are considered Flexible Groups. A flexible group is a group of emission units that would have identical permitting requirements. Flexible groups can simplify a permit by assigning similar regulations to groups of similar equipment. Table 1 presents information about each mixer and reactor along with baghouse parameters for each flexible group.

Table 1. Flexible Group and Emission Unit Information

Flexible Group	Emission Unit Description	Baghouse Air Flow (ft^3/min)	Baghouse Temperature	Stack Diameter (ft)	Stack Height (ft)
Baghouse #20	Meyers Mixer 95 gal	10,000	75F	1	36
	Meyers Mixer 95 gal				
	Hockmeyer Mixer 180 gal				
	Ribbon Mixer 450 gal				
Baghouse #21	Meyers Mixer 350 gal	7,500	75F	1	12 (horizontal)
	Meyers Mixer 350 gal				
	Hockmeyer Mixer 350 gal				
	Cowles HS Disperser 200 gal				
	Reactor #1 110 gal 190C Oil				
	Reactor #2 110 gal 190C Oil				

VOC Emissions and toxic air contaminants (TAC) from the mixing operations have been calculated using a mass balance of chemicals used in the mixing process. The amount of a compound added, and its VOC content are used to calculate monthly emissions of VOCs. Three years of chemical usage data were used to determine a maximum annual usage value. The mixers and reactors are only open to the atmosphere during loading and unloading operations. During the rest of the batch cycle, the mixers and reactors are covered. Michigan EGLE has recommended a factor of 2% of total chemical used are assumed to be emitted to the atmosphere. This factor considers the time that the mixers and reactors are open and emit pollutants through the hooding systems.

The actual hourly emissions estimates were estimated by multiplying the maximum monthly usage amount by chemical by the 2% emission factor and then dividing by the monthly operating hours. Actual annual emissions multiplied the hourly emissions by the annual operating hours. Potential emissions were estimated by multiplying the hourly emissions by 8,760 hours per year.

The additions of compounds and resins are not recorded at mixer level and therefore emissions from the production area cannot be broken down to less than a plant-wide basis. VOC and TAC emissions are split evenly between each flexible group. Emissions by emission unit are divided evenly between each emission unit in a flexible group. Tables 2 and 3 show emissions of VOC and TAC respectively for each emission unit.

Table 2. Estimated VOC Emissions by Emission Unit

Flexible Group	Emission Unit	Total VOC		
		Hourly Emissions (lb/hr)	Actual Annual Emissions (ton/yr)	Potential to Emit (ton/yr)
Baghouse 20	Meyers Mixer 95 gal	0.170	0.181	0.745
	Meyers Mixer 95 gal	0.170	0.181	0.745
	Hockmeyer Mixer 180 gal	0.170	0.181	0.745
	Ribbon Mixer 450 gal	0.170	0.181	0.745
Baghouse 21	Meyers Mixer 350 gal	0.113	0.121	0.497
	Meyers Mixer 350 gal	0.113	0.121	0.497
	Hockmeyer Mixer 350 gal	0.113	0.121	0.497
	Cowles HS Disperser 200 gal	0.113	0.121	0.497
	Reactor #1 110 gal 190C Oil	0.113	0.121	0.497
	Reactor #2 110 gal 190C Oil	0.113	0.121	0.497
Total VOC Emissions from Mixing Operations		**1.36**	**1.45**	**5.96**

PM emissions are controlled by two baghouses. Baghouse #20 is a 10,000 CFM Donaldson Torit Baghouse. The baghouse stack is 36 feet tall and has a diameter of 12 inches. Baghouse #20 controls emissions from hoods for four mixers and several pick-up points that have hoses to control emissions from various stations.

Baghouse #21 is a 7,500 Donaldson Torit 3-12 baghouse. The exit of the stack for Baghouse #21 is horizontal to the ground and the stack exit is approximately 12 feet above the ground. Baghouse #21 controls emissions from two reactor vessels and three mixers.

Each baghouse uses cartridge filters. Standard cartridges used in these baghouses have a MERV rating of 13. A MERV rating of 13 equates to 90% control of particulate ranging from 0.2 to 10 microns. Both baghouses are assumed to have grain loadings of less than 0.005 grains per dry standard cubic foot. Actual emissions from each baghouse were calculated using this grain loading and then allocated to each emission unit. PM potential emissions from Baghouses #20 and #21 were calculated using guidelines from Michigan EGLE for particulate control.

Table 3. Estimated Emissions from Mixing Operations of Largest Emitted TACs by Emission Unit

Baghouse ID	Emission Unit	styrene			vinyl toluene			xylene		
		100-42-5			25013-15-4			1330-20-7		
		Hourly Emissions (lb/hr)	Actual Annual Emissions (ton/yr)	Potential to Emit (ton/yr)	Hourly Emissions (lb/hr)	Actual Annual Emissions (ton/yr)	Potential to Emit (ton/yr)	Hourly Emissions (lb/hr)	Actual Annual Emissions (ton/yr)	Potential to Emit (ton/yr)
Baghouse 20	Meyers Mixer 95 gal	0.097	0.103	0.423	0.055	0.059	0.241	0.035	0.037	0.153
	Meyers Mixer 95 gal	0.097	0.103	0.423	0.055	0.059	0.241	0.035	0.037	0.153
	Hockmeyer Mixer 180 gal	0.097	0.103	0.423	0.055	0.059	0.241	0.035	0.037	0.153
	Ribbon Mixer 450 gal	0.097	0.103	0.423	0.055	0.059	0.241	0.035	0.037	0.153
Baghouse 21	Meyers Mixer 350 gal	0.064	0.068	0.282	0.037	0.039	0.161	0.023	0.025	0.102
	Meyers Mixer 350 gal	0.064	0.068	0.282	0.037	0.039	0.161	0.023	0.025	0.102
	Hockmeyer Mixer 350 gal	0.064	0.068	0.282	0.037	0.039	0.161	0.023	0.025	0.102
	Reactor #1 110 gal 190C Oil	0.064	0.068	0.282	0.037	0.039	0.161	0.023	0.025	0.102
	Cowles HS Disperser 200 gal	0.064	0.068	0.282	0.037	0.039	0.161	0.023	0.025	0.102
	Reactor #2 110 gal 190C Oil	0.064	0.068	0.282	0.037	0.039	0.161	0.023	0.025	0.102
Total Emissions		**0.77**	**0.82**	**3.38**	**0.44**	**0.47**	**1.93**	**0.28**	**0.30**	**1.23**

Table 4. Estimated PM Emissions for Mixing Operations by Emission Unit

Flexible Group	Emission Unit	Baghouse Air Flow (ft^3/min)	Grain Loading of Baghouse (gr/dry standard ft^3)	Hourly Emissions (lb/hr)	Actual Annual Emissions (ton/year)	Potential to Emit (ton/year) EGLE Calculation
Baghouse #20	Meyers Mixer 95 gal	10,000	0.0050	0.11	0.11	4.93
	Meyers Mixer 95 gal			0.11	0.11	4.93
	Hockmeyer Mixer 180 gal			0.11	0.11	4.93
	Ribbon Mixer 450 gal			0.11	0.11	4.93
Baghouse #21	Meyers Mixer 350 gal	7,500	0.0050	0.05	0.06	2.46
	Meyers Mixer 350 gal			0.05	0.06	2.46
	Hockmeyer Mixer 350 gal			0.05	0.06	2.46
	Cowles HS Disperser 200 gal			0.05	0.06	2.46
	Reactor #1 110 gal 190C Oil			0.05	0.06	2.46
	Reactor #2 110 gal 190C Oil			0.05	0.06	2.46
Total Emissions				**0.75**	**0.80**	**34.49**

Board Production
Sika produces polyurethane boards from mixing polyols and isocyanate. A metering system pours and mixes the compounds into molds. These molds are cured in electrically heated ovens that vent into the room. Cured polyurethane boards are sawed, planed, and sanded into specified widths and sizes. Particulate emissions from the planer sander machine are vented to a cyclone and then to a dust collector. The baghouse and cyclone each have an air flow capacity of 15,000 CFM. Sika personnel provided filter dust waste records for the dust collection system. These records are presented in Table 5.

Actual annual emissions were calculated by multiplying the estimated monthly emissions by 12 months per year. Actual hourly emissions were calculated assuming 8.5 hours per day and five days per week for 50 weeks (2,125 hours per year). Potential emissions were calculated prior to emission controls assuming 8,760 hours per year of operation.

Table 5. Board Production Filter Dust Waste Removal by Posting Month

Month	**Weight (short tons)**
January, 2023	2.15
February, 2023	2.01
March, 2023	1.5
July, 2023	3.68
August, 2023	2.28
October, 2023	1.29
Total Dust Collected	12.91
Monthly Average Collected (10 months)	1.29 tons
Actual Monthly Average Emitted	26.08 pounds
Annual Actual Emissions	0.156 ton/yr
Actual Hourly Emissions	0.147 lb/hr
Potential Emissions (without controls)	**29.57 ton/yr**

Assuming the dust collection system has a removal efficiency of 99%, the actual emissions from the board production line were estimated using the calculation below.

$E_s = T_s \times (1 - RE)$
$T_s = E_c + E_s$

Where:
E_c = Filter Dust Collected per month
E_s = Actual Emissions from collection system
T_s = Total Dust Loading from planer sander
RE = Removal Efficiency (assume 99%)

$E_s = (E_c + E_s)\ (1 - RE)$

$E_s = (E_c + E_s) \times 1\%$
$0.99 \times E_s = 0.01 \times E_c$
$E_s = 0.01 \times E_c / 0.99$

E_s = 0.01 x 1.29 tons / 0.99 = 0.013 tons per month x 2000 lb/ton = 26.08 lb/month

Potential emissions were estimated using the following EGLE formula:

PTE = CFM x 60 min/hr x 0.075 lb air/CF air x (0.1 lb PM/1,000 lb air) x 8760 hr/yr / 2,000 lb/ton

Air Permitting History

Sika currently has a Permit to Install (PTI No. 86-95) that was issued on August 1, 1995. The PTI covers process equipment to formulate polyester resin products and epoxy resin products and hardeners. The process equipment covered includes storage tanks, pumps, mixers, and blenders. The permit limits plant-wide VOC emissions to 2.77 pounds per hour and 12.1 tons per year. PM emissions are limited to 0.28 pounds per hour and 0.021 pounds per 1,000 pounds of exhaust. The PTI also limits emissions of two TACs. Styrene (CAS No. 100-42-5) is limited to 0.129 pounds per hour and vinyl toluene (CAS No. 25013-15-4) is limited to 0.0714 pounds per hour. Table 6 lists the emission limits.

Table 6. Emission Limits Listed in PTI 86-95

Air Pollutant	Pounds per hour (lb/hr)	Tons per year (tpy)
VOC	2.77	12.1
PM*	0.28	
Styrene	0.129	
Vinyl Toluene	0.0714	

Note: * Baghouse to emit no more than 0.021 lb/1000 lb exhaust gas

Emission estimates presented in Table 2 show plant-wide hourly and annual emissions of VOC below the VOC limits listed in Table 6 above, however emissions of Styrene and Vinyl Toluene are both greater than the existing limits. An EGLE inspection report dated November 11, 2015 noted that the PTI did not make these limits enforceable as a practical matter. The report stated that, “Current compliance with the emission limits at this time cannot be concluded with certainty.”

The original "air toxics rules" were promulgated on April 17, 1992. After several years of implementation of these rules, revisions were made to the air toxics rules. These revisions became effective on November 10, 1998. These rules contain the requirements for sources that emit toxic air contaminants. The emission limits found in the PTI for the two TACs were issued prior to the latest air toxics rules implemented by the state.

Summary of Applicable State Regulations

Listed below are air emission regulations and rules that may be applicable to Sika.

<u>Michigan Air Rule 201</u>

Rule 201 of the Michigan Air Pollution Control Rules requires a person to obtain an approved Permit to Install for any potential source of air pollution unless the source is exempt from the permitting process.

Exemptions to Air Rule 201

Michigan's Air Rules allow for exemptions for various processes and levels of emissions.

Listed below in Table 7 are all the Air Rules allowing for exemptions:

Table 7. Exemptions to Air Permitting

Air Rule Number	Description
281	Cleaning, washing, and drying equipment
282	Furnaces, ovens, and heaters
283	Testing and inspection equipment
284	Containers
285	Miscellaneous equipment
286	Plastic processing equipment
287	Surface coating equipment
288	Oil and gas processing equipment
289	Asphalt and concrete production equipment
290	Emission units with limited emissions
291	Emission units with "de minimis" emissions

Processes Exempted from Permitting

Testing Laboratory
The Eaton Rapids facility has a test lab to test products before shipment. Within the lab are three fume hoods for testing and sampling. Michigan Air Rule 283 (R 336.1283 (b)) exempts laboratory equipment from requirements to obtain an air permit.

Parts Washers
Sika has two small parts washers. One parts washer is in the production room while the other is in the packaging room. Michigan Air Rule 281 (R 336.1281 (h)) exempts cold cleaners that have an opening of less than 10 square feet from requirements to obtain an air permit. During Cornerstone's site visit, the parts washers appeared to have openings smaller than 10 square feet.

Cleaning Operations
Sika uses a cleaner to clean equipment in the facility. The SDS for the cleaner, Sika Special Cleaning Blend, states that it has a VOC content of 1.086 grams VOC per liter (0.0091 pound VOC per gallon) and a density of 1.088 gram per cubic centimeter (9.074 pound per gallon). Sika provided annual usage of the cleaner for the years 2021 to 2023. The maximum usage in the three-year period was 24,950 pounds per year. Cornerstone estimated the actual VOC emissions as 0.012 ton per year with a Potential to Emit of 0.051 ton per year. The emissions from this operation fall below the de minimus emissions threshold for permitting as per Michigan Air Rule 291. Further discussion of Air Rule 291 is provided below. Sika Special Cleaning Blend contains no Hazardous Air Pollutants.

Board Production
The Sander Planer Baghouse collects polyurethane dust. Polyurethane has a CAS number of 9009-54-5. Cornerstone searched the EGLE Initial Threshold Screening Level database and found no entry.

Michigan Air Rule 290 allows for exemptions to PM emission sources if:

- Air contaminant is not a carcinogen (Does not have an Initial Risk Screening Level – IRSL)
  - Polyurethane dust does not have an IRSL in EGLE ITSL/IRSL database.
- Is controlled to 0.01 lb/1000 lbs of exhaust gas.
  - Baghouse control is estimated to be 0.0022 lb/1000 lbs of exhaust gas.
- Uses a baghouse < 30,000 cfm.
  - Baghouse maximum flow is 15,000 cfm.
- Has an ITSL > 2 µg/m3
  - Polyurethane is not listed in EGLE ITSL/RTSL database and therefore is not considered a TAC.
- Is less than 5% opacity.
  - PM emissions are just visible at 5% opacity. During the site visit, Cornerstone did not see any visible emissions coming from the planer sander stack.

The Air Rule 290 exemption is applicable for the planer sander emission unit and therefore does not have to be permitted.

Mixing Operations
Air Rule 291 states that a Permit to Install is not required if potential emissions from an emission unit meet the conditions listed in Table 23 of the Rule (listed below as Table 8) for all air contaminants listed:

Table 8. Air Contaminant De Minimus Emissions Levels

Air Contaminant	Potential Emissions Not to be Exceeded
CO_2 equivalent	75,000 tons per year
CO	10 tons per year
NO_X	10 tons per year
SO_2	10 tons per year
VOC (as defined in R 336.1122)	5 tons per year
PM	10 tons per year
PM-10	5 tons per year
PM-2.5	3 tons per year
Total toxic air contaminants not listed in table 23 with any screening level	5 tons per year
Total air contaminants not listed in table 23 that are non-carcinogenic and do not have a screening level	6 tons per year

Tables 2, 3 and 4 shows potential emissions of air contaminants from each emission unit are less than the values listed in Table 8 above. Emission units from mixing operations do not need to be permitted.

Air Toxics Rule

Michigan Air Quality Division (AQD) regulates sources of air pollutants to protect human health. Heath-based screening levels are utilized in AQD's Permits to Install (PTI) regulatory program for the assessment of TAC emissions. There are two basic requirements of Michigan's Air Toxic Rules. First, each applicable source must apply the best available control technology for toxics (T-BACT). After the application of T-BACT, the emissions of the TAC cannot result in a maximum ambient concentration that exceeds the applicable health-based screening level.

Air Rule 224 and 225 state that Michigan's Air Toxics Rule applies to facilities that are required to obtain a Permit to Install. All processes located at the Sika facility have been shown to be exempt from permitting. Because Sika does not have to obtain a PTI, T-BACT and health-based screening analyses are not required.

Findings and Recommendations

Cornerstone has determined Sika is exempt from EGLE requirements to obtain a PTI for all processes performed at the Eaton Rapids, MI facility. Sika should maintain a copy of this report to present to EGLE personnel during any inspection of the facility.

Finally, Cornerstone recommends that any future modifications or process changes, including raw material or product changes, be evaluated prior to making any change to determine the effect of this registration.

Appendix A: Emission Calculations

Table A-1: Chemical Usage 2018-2020 for Mixing Operations

VOC	CAS	2018			2019			2020			Maximum		
		Hourly Emissions (lb/hr)	Actual Annual Emissions (ton/yr)	Potential to Emit (ton/yr)	Hourly Emissions (lb/hr)	Actual Annual Emissions (ton/yr)	Potential to Emit (ton/yr)	Hourly Emissions (lb/hr)	Actual Annual Emissions (ton/yr)	Potential to Emit (ton/yr)	Hourly Emissions (lb/hr)	Actual Annual Emissions (ton/yr)	Potential to Emit (ton/yr)
ethanol	64-17-5	0.025	0.026	0.109	0.033	0.035	0.145	0.033	0.035	0.145	0.033	0.035	0.145
Ethoxyethanol	110-80-5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ethyl acetate	141-78-6	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Isopropenylbenzene	98-83-9	0.001	0.001	0.003	0.000	0.000	0.001	0.000	0.000	0.001	0.001	0.001	0.003
MEK	78-93-3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Methyl methacrylate	80-62-6	0.017	0.018	0.073	0.032	0.034	0.140	0.032	0.034	0.140	0.032	0.034	0.140
solvent naphtha	various	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
styrene	100-42-5	0.672	0.713	2.941	0.772	0.820	3.382	0.772	0.820	3.382	0.772	0.820	3.382
toluene	108-88-3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
vinyl toluene	25013-15-4	0.352	0.374	1.542	0.441	0.468	1.930	0.441	0.468	1.930	0.441	0.468	1.930
xylene	1330-20-7	0.280	0.298	1.226	0.083	0.088	0.363	0.083	0.088	0.363	0.280	0.298	1.226
n-butyl acetate	123-86-4	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
butan-1-ol	71-36-3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
butanone	78-93-3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1-methoxy-2-propanol	107-98-2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total VOC		1.346	1.430	5.895	1.361	1.446	5.962	1.361	1.446	5.962	1.361	1.446	5.962

Table A-2: VOC Emissions from Mixing Operations by Emission Unit

Flexible Group	Emission Unit	Total VOC		
		Hourly Emissions (lb/hr)	Actual Annual Emissions (ton/yr)	Potential to Emit (ton/yr)
Baghouse #20	Meyers Mixer 95 gal	0.170	0.181	0.745
	Meyers Mixer 95 gal	0.170	0.181	0.745
	Hockmeyer Mixer 180 gal	0.170	0.181	0.745
	Ribbon Mixer 450 gal	0.170	0.181	0.745
Baghouse #21	Meyers Mixer 350 gal	0.113	0.121	0.497
	Meyers Mixer 350 gal	0.113	0.121	0.497
	Hockmeyer Mixer 350 gal	0.113	0.121	0.497
	Cowles HS Disperser 200 gal	0.113	0.121	0.497
	Reactor #1 110 gal 190C Oil	0.113	0.121	0.497
	Reactor #2 110 gal 190C Oil	0.113	0.121	0.497
Total Emissions		1.36	1.45	5.96

Table A-3: Highest Emitting TAC Emissions from Mixing Operations by Emission Unit

Flexible Group	Emission Unit	styrene			vinyl toluene			xylene		
		100-42-5			25013-15-4			1330-20-7		
		Hourly Emissions (lb/hr)	Actual Annual Emissions (ton/yr)	Potential to Emit (ton/yr)	Hourly Emissions (lb/hr)	Actual Annual Emissions (ton/yr)	Potential to Emit (ton/yr)	Hourly Emissions (lb/hr)	Actual Annual Emissions (ton/yr)	Potential to Emit (ton/yr)
Baghouse 20	Meyers Mixer 95 gal	0.097	0.103	0.423	0.055	0.059	0.241	0.035	0.037	0.153
	Meyers Mixer 95 gal	0.097	0.103	0.423	0.055	0.059	0.241	0.035	0.037	0.153
	Hockmeyer Mixer 180 gal	0.097	0.103	0.423	0.055	0.059	0.241	0.035	0.037	0.153
	Ribbon Mixer 450 gal	0.097	0.103	0.423	0.055	0.059	0.241	0.035	0.037	0.153
Baghouse 21	Meyers Mixer 350 gal	0.064	0.068	0.282	0.037	0.039	0.161	0.023	0.025	0.102
	Meyers Mixer 350 gal	0.064	0.068	0.282	0.037	0.039	0.161	0.023	0.025	0.102
	Hockmeyer Mixer 350 gal	0.064	0.068	0.282	0.037	0.039	0.161	0.023	0.025	0.102
	Cowles HS Disperser 200 gal	0.064	0.068	0.282	0.037	0.039	0.161	0.023	0.025	0.102
	Reactor #1 110 gal 190C Oil	0.064	0.068	0.282	0.037	0.039	0.161	0.023	0.025	0.102
	Reactor #2 110 gal 190C Oil	0.064	0.068	0.282	0.037	0.039	0.161	0.023	0.025	0.102
Total Emissions		0.77	0.82	3.38	0.44	0.47	1.93	0.28	0.30	1.23

Table A-4: Stack Parameters of Baghouses for Mixing Operations

Flexible Group	Emission Unit	Baghouse Air Flow (ft^3/min)	Baghouse Temperature	Stack Diameter (ft)	Stack Height (ft)
Baghouse #20	Meyers Mixer 95 gal	10,000	75F	1	36
	Meyers Mixer 95 gal				
	Hockmeyer Mixer 180 gal				
	Ribbon Mixer 450 gal				
Baghouse #21	Meyers Mixer 350 gal	7,500	75F	1	12 (horizontal)
	Meyers Mixer 350 gal				
	Hockmeyer Mixer 350 gal				
	Cowles HS Disperser 200 gal				
	Reactor #1 110 gal 190C Oil				
	Reactor #2 110 gal 190C Oil				

Table A-5: PM Emissions from Mixing Operations by Emission Unit

Flexible Group	Emission Unit	Baghouse Air Flow (ft^3/min)	Grain Loading of Baghouse (gr/dry standard ft^3)	Hourly PM Emissions (lb/hr)	Actual Annual PM Emissions (ton/year)	PM Potential to Emit (ton/year) EGLE Calculation
Baghouse #20	Meyers Mixer 95 gal	10,000	0.0050	0.11	0.11	4.93
	Meyers Mixer 95 gal			0.11	0.11	4.93
	Hockmeyer Mixer 180 gal			0.11	0.11	4.93
	Ribbon Mixer 450 gal			0.11	0.11	4.93
Baghouse #21	Meyers Mixer 350 gal	7,500	0.0050	0.05	0.06	2.46
	Meyers Mixer 350 gal			0.05	0.06	2.46
	Hockmeyer Mixer 350 gal			0.05	0.06	2.46
	Cowles HS Disperser 200 gal			0.05	0.06	2.46
	Reactor #1 110 gal 190C Oil			0.05	0.06	2.46
	Reactor #2 110 gal 190C Oil			0.05	0.06	2.46

Table A-6: PM Emissions Calculations for Sander Planer Baghouse

Sander Planer

Records of Dust Removed from Bins (January - October, 2023)

Month of Pickup	Collected Dust Weight (tons/haul)	
January	2.15	
February	2.01	
March	1.5	
July	3.68	
August	2.28	
October	1.29	
Total	12.91	
Average	1.291	
Period	10	months

Actual Emissions from Stack

26.08	lb/mo

Notes: Emission Estimates Based on Dust Collected.

$E_s = T_s \times (1 - RE)$

$T_s = E_c + E_s$

$E_s = (E_c + E_s)(1 - RE)$

Where:

E_s = Emissions from collection system

T_s = Total Dust Loading from planer sander

E_c = Filter Dust Collected per month

RE = Removal Efficiency (assume 99%)

$E_s = (E_c + E_s) \times 1\%$

$0.99 \times E_s = 0.01 \times E_c$

$E_s = 0.01 \times E_c / 0.99$

E_s = 0.01 x 1.29 tons / 0.99 = 0.013 tons per month x 2000 lb/ton = 26.08 lb/month

PTE = CFM x 60 min/hr x 0.075 lb air/CF air x (0.1 lb PM/1,000 lb air) x 8760 hr/yr / 2,000 lb/ton

Baghouse Flow for the Planer Sander Baghouse = 15,000 CFM

29.57 ton PM/year PTE

Table A-7: VOC Emissions Calculations for Cleaning Operations

Emissions from Cleaning Operations

Year	Amount Used (lb/yr)	Density (lb/gal)	VOC Content (g/liter)	VOC Content (lb/gal)	Actual Annual VOC (ton/yr)	PTE VOC (ton/yr)
2021	17,964	9.074	1.086	0.0091	0.009	0.037
2022	24,950	9.074	1.086	0.0091	0.012	0.051
2023	19,960	9.074	1.086	0.0091	0.010	0.041
Maximum	24,950				0.012	0.051

Annual cleaning solution usage provided by Sika personnel.

Safety Data Sheet

according to OSHA Hazard Communication
29 CFR Part 1910.1200

SECTION 1. Identification

Product Code 50265D01

Product Name: Sika Special Cleaning Blend #1

Supplied by:
EMCO Chemical Distributors, Inc.
8601 95th Street
Pleasant Prairie, Wisconsin 53158
(262) 427-0400
E-Mail: information@emcochem.com

24 hr. Emergency:
CHEMTREC: 1-800-424-9300
International: +1-703-527-3887

NOTE: CHEMTREC emergency numbers to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals

SECTION 2. Hazard(s) Identification

***** EMERGENCY OVERVIEW ***:** May damage fertility or the unborn child.

GHS Classification
Repr. 1A

Symbol(s) of Product

Signal Word
Danger

GHS HAZARD STATEMENTS

Reproductive Toxicity, category 1A	H360	May damage fertility or the unborn child.

GHS PRECAUTIONARY STATEMENTS

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

SECTION 3. Composition/Information on Ingredients

Chemical Name	CAS-No.	Wt. %	GHS Symbols	GHS Statements
Dimethyl glutarate	1119-40-0	50-75	No Information	No Information
Dimethyl succinate	106-65-0	10-25	No Information	H320
Dimethyl adipate	627-93-0	10-25	GHS07	H332
N-methy lpyrrolidone	872-50-4	2.5-10	GHS07-GHS08	H227-315-319-335-360
Methanol	67-56-1	0.1-1.0	GHS02-GHS06-GHS08	H225-301-311-331-370

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

SECTION 4. First-Aid Measures

FIRST AID - EYE CONTACT: Immediately flush eyes with water. Flush eyes with water for a minimum of 15 minutes, occasionally lifting and lowering upper lids. Get medical attention promptly.

FIRST AID - SKIN CONTACT: Immediately flush skin with plenty of water. Remove clothing. Get medical attention immediately. Wash clothing separately and clean shoes before reuse.

FIRST AID - INHALATION: Rescuers should put on appropriate protective gear. Remove from area of exposure. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Keep victim warm. Get immediate medical attention.

FIRST AID - INGESTION: Small amounts which accidentally enter mouth should be rinsed out until taste of it is gone. Do not induce vomiting. Do not give liquids. Obtain emergency medical attention. Never give anything by mouth to an unconscious person.

SECTION 5. Fire-Fighting Measures

UNUSUAL FIRE AND EXPLOSION HAZARDS: Highly flammable liquid and vapor. Can form explosive mixtures at temperatures at or above the flashpoint. Vapors/dust may form explosive mixture with air. Vapors can travel to a source of ignition and flash back. Empty containers retain product residue (liquid and/or vapor) and can be dangerous. DO NOT pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. Also, do not reuse container without commercial cleaning or reconditioning.

SPECIAL FIREFIGHTING PROCEDURES: As in any fire, wear self-contained breathing apparatus pressure-demand (MSHA/NIOSH approved or equivalent) and full protective gear. Avoid use of solid water streams. Do not use water jet (frothing possible). Water spray to cool containers or protect personnel. Use with caution. Water runoff can cause environmental damage. Dike and collect water used to fight fire.

EXTINGUISHING MEDIA: Carbon Dioxide, Dry Chemical, Foam, Water Fog

SECTION 6. Accidental Release Measures

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASE OR SPILLED: Wear appropriate personal protective equipment. (See Exposure Controls / Personal Protection Section.)Eliminate all ignition sources. Prevent additional discharge of material if able to do so safely. Do not touch or walk through spilled material. Avoid runoff into storm sewers and ditches which lead to waterways. Ventilate spill area. Stay upwind of spill. Collect spilled materials for disposal. Use only non-combustible material for clean-up. Use clean, non-sparking tools to collect absorbed materials. Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container. Flush spill area with water spray after clean up.

SECTION 7. Handling and Storage

HANDLING: Use only in a well ventilated area. Avoid breathing vapor, fumes or mist. Avoid contact with eyes, skin, and clothing. When transferring, follow proper grounding procedures. Use spark-resistant tools. Do not load into compartments adjacent to heated cargo. Use explosion proof equipment. Always open containers slowly to allow any excess pressure to vent. Follow all MSDS/label precautions even after containers are emptied because they may retain product residues.

STORAGE: Keep away from heat, sparks, and flame. Containers can build up pressure if exposed to heat (fire). Store containers in a cool, well ventilated place. Keep container closed when not in use. Protect from direct sunlight.

SECTION 8. Exposure Controls/Personal Protection

Ingredients with Occupational Exposure Limits

Chemical Name	ACGIH TLV-TWA	ACGIH-TLV STEL	OSHA PEL-TWA	OSHA PEL-CEILING
Dimethyl glutarate	N.D.	N.D.	N.D.	N.D.
Dimethyl succinate	N.D.	N.D.	N.D.	N.D.
Dimethyl adipate	N.D.	N.D.	N.D.	N.D.
N-methy lpyrrolidone	N.D.	N.D.	N.D.	N.D.
Methanol	200 ppm	250 ppm	200 ppm	N.D.

Personal Protection

RESPIRATORY PROTECTION: Wear a MSHA/NIOSH approved (or equivalent) full-facepiece airline respirator in the positive pressure mode with emergency escape provisions.

SKIN PROTECTION: Wear impervious gloves to prevent contact with the skin. Wear protective gear as needed - apron, suit, boots.

EYE PROTECTION: Use chemical splash goggles and face shield (ANSI Z87.1 or approved equivalent).

OTHER PROTECTIVE EQUIPMENT: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

HYGENIC PRACTICES: Do not eat, drink, or smoke in areas where this material is used. Avoid breathing vapors. Remove contaminated clothing and wash before reuse. Wash thoroughly after handling. Wash hands before eating.

SECTION 9. Physical and Chemical Properties

Appearance:	Clear liquid	**Physical State:**	Liquid
Odor:	Typical	**Odor Threshold:**	N.D.
Density, g/cm3:	1.088	**pH:**	N.D.
Freeze Point, °F:	N.D.	**Viscosity:**	N.D.
Solubility in Water:	Slight	**Explosive Limits, vol%:**	0.9 - 8.0
Boiling Range, °F:	383 - 446	**Flash Point, °F:**	>200
Evaporation Rate:	Not determined	**Auto-ignition Temp., °F:**	N.D.
Vapor Density:	N.D.	**Vapor Pressure:**	N.D.

(See "Other information" Section for abbreviation legend)

SECTION 10. Stability and Reactivity

STABILITY: No Information

CONDITIONS TO AVOID: Avoid impact, friction, heat, sparks, flame and source of ignition.

INCOMPATIBILITY: Prevent contact with strong oxidizing agents. Avoid contact with strong reducing agents. Keep away from acids. Keep separate from alkalies. Avoid moisture and humidity.

HAZARDOUS DECOMPOSITION PRODUCTS: Toxic gases/fumes are given off during burning or thermal decomposition. During combustion carbon monoxide may be formed. During combustion carbon dioxide may be formed. Decomposition releases nitrogen oxides. Combustion can lead to the formation of formaldehyde. Combustion can lead to formation of formic acid.

HAZARDOUS POLYMERIZATION: No Information

SECTION 11. Toxicological Information

Information on Toxicological Effects

Primary Route(s) of Entry: **Eye Contact, Ingestion, Inhalation, Skin Contact**

EFFECTS OF OVEREXPOSURE - INHALATION: Breathing in the material may irritate the mucous membranes of the nose, throat bronchi and lungs. Vapors can cause irritation to the respiratory tract. May cause dizziness and drowsiness. May cause blurred vision. High vapor concentrations may cause headache, dizziness, tiredness, nausea and/or vomiting.

EFFECTS OF OVEREXPOSURE - SKIN CONTACT: Causes skin irritation. Symptoms may include redness and dryness. Prolonged and or repeat skin contact may result in redness and blurred vision. Personnel with pre-existing skin disorders should

avoid contact with this product. Prolonged or repeated contact can result in defatting and drying of the skin which may result in skin irritation and dermatitis (rash).
EFFECTS OF OVEREXPOSURE - EYE CONTACT: Causes serious eye irritation. Symptoms may include stinging, tearing, redness, swelling and blurred vision.
EFFECTS OF OVEREXPOSURE - INGESTION: May be harmful if swallowed. May be fatal or cause blindness if swallowed. Ingestion may cause gastrointestinal tract irritation. Ingestion may result in nausea, vomiting, diarrhea and pain.
EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS: Possible reproductive hazard. May cause damage to unborn child. May damage fertility or the unborn child. May cause harm to breast-fed children. Material is slowly eliminated from the body, therefore it can have cummulative toxicity effects with repeated exposures. Significant exposure to this chemical may adversely affect people with chronic disease of the respiratory system, central nervous system, kidney, liver, skin, and/or eyes.

Carcinogenicity

CAS-No.	Name	IARC	NTP
1119-40-0	Dimethyl glutarate	3- Not classifiable as to its carcinogenicity to humans.	Not Listed
106-65-0	Dimethyl succinate	3- Not classifiable as to its carcinogenicity to humans.	Not Listed
627-93-0	Dimethyl adipate	N.D.	N.D.
872-50-4	N-methy lpyrrolidone	3- Not classifiable as to its carcinogenicity to humans.	Not Listed
67-56-1	Methanol	3- Not classifiable as to its carcinogenicity to humans.	Not Listed

Acute Toxicity Values
The acute effects of this product have not been tested. Data on individual components are tabulated below:

CAS-No.	Name	Oral LD50, mg/kg	Dermal LD50, mg/kg	Vapor LC50, mg/L
1119-40-0	Dimethyl glutarate	>5000	>2000	>20
106-65-0	Dimethyl succinate	>5000	>2000	>20
627-93-0	Dimethyl adipate	>5000	>2000	>11
872-50-4	N-methy lpyrrolidone	4150	>5000	>20
67-56-1	Methanol	300	>200	>2

SECTION 12. Ecological Information

ECOLOGICAL INFORMATION: No Information

SECTION 13. Disposal Considerations

For more guidance and information contact our Waste Services Division at (262) 658-4000.

Always dispose of any waste in accordance with all local, state, and federal regulations.

DISPOSAL METHOD: Dispose of waste in accordance with all local, state and federal regulations.

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASE OR SPILLED: Wear appropriate personal protective equipment. (See Exposure Controls / Personal Protection Section.)Eliminate all ignition sources. Prevent additional discharge of material if able to do so safely. Do not touch or walk through spilled material. Avoid runoff into storm sewers and ditches which lead to waterways. Ventilate spill area. Stay upwind of spill. Collect spilled materials for disposal. Use only non-combustible material for clean-up. Use clean, non-sparking tools to collect absorbed materials. Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container. Flush spill area with water spray after clean up.

SECTION 14. Transport Information

DOT Proper Shipping Name:	Not Regulated	**Packing Group:**	No Information
DOT Hazard Class:	No Information	**Hazard SubClass:**	No Information
DOT UN/NA Number:	No Information	**Resp. Guide Page:**	No Information

SECTION 15. Regulatory Information

U.S. Federal Regulations:

CERCLA - SARA Hazard Category

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

Acute Health Hazard, Chronic Health Hazard

SARA SECTION 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

Chemical Name	CAS-No.
N-methy lpyrrolidone	872-50-4
Methanol	67-56-1

TOXIC SUBSTANCES CONTROL ACT:

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(B) if exported from the United States:

Chemical Name	CAS-No.
Dimethyl adipate	627-93-0
N-methy lpyrrolidone	872-50-4

U.S. State Regulations:

NEW JERSEY RIGHT-TO-KNOW:

The following materials are non-hazardous, but are among the top five components in this product.

No NJ Right-To-Know components exist in this product.

PENNSYLVANIA RIGHT-TO-KNOW

The following non-hazardous ingredients are present in the product at greater than 3%.

No PA Right-To-Know components exist in this product.

CALIFORNIA PROPOSITION 65 CARCINOGENS

Warning: The following ingredients present in the product are known to the state of California to cause Cancer.

No Proposition 65 Carcinogens exist in this product.

CALIFORNIA PROPOSITION 65 REPRODUCTIVE TOXINS

Warning: The following ingredients present in the product are known to the state of California to cause birth defects, or other reproductive hazards.

Chemical Name	CAS-No.
N-methy lpyrrolidone	872-50-4
Methanol	67-56-1

International Regulations: As follows -

CANADIAN WHMIS:

This SDS has been prepared in compliance with Controlled Product Regulations except for the use of the 16 headings.

WHMIS Class: No Information

SECTION 16. Other Information

Revision Date: 11/29/2022 **Supersedes Date:** New SDS

Datasheet produced by: EH&S - Regulatory Department

HMIS Ratings:

Health:	2	Flammability:	1	Reactivity:	0	Personal Protection:	X

Volatile Organic Compounds, gr/ltr: 1,086

DISCLAIMER: THE VOLATILE ORGANIC COMPOUND (VOC) CONTENT REPORTED HEREIN, IF ANY, IS BASED ON A MATERIAL VOC CALCULATION. NOTE THAT SEVERAL METHODS ARE USED FOR CALCULATING VOC CONTENT AND THAT STANDARDS/ REQUIREMENTS REGARDING VOC CONTENT VARY BY LOCATION/JURISDICTION. ACCORDINGLY, EMCO MAKES NO REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED, REGARDING THIS MATERIAL'S COMPLIANCE WITH VOC STANDARDS/REQUIREMENTS APPLICABLE IN LOCATIONS/JURISDICTIONS WHERE THIS MATERIAL MAY BE SOLD OR USED.

Text for GHS Hazard Statements shown in Section 3 describing each ingredient:

H225	Highly flammable liquid and vapor.
H227	Combustible liquid
H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H320	Causes eye irritation
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H360	May damage fertility or the unborn child.
H370	Causes damage to organs.

Icons for GHS Pictograms shown in Section 3 describing each ingredient:

GHS02 

GHS06 

GHS07 

GHS08 

Legend: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined, N.I. - No Information

The information on this SDS was obtained from sources which we believe to be reliable. However, the information provided is without any warranty, expressed or implied, regarding its correctness. Some information presented and conclusions drawn herein are from sources other than direct test data on the product itself. The information and recommendations are offered for the user's consideration and examination and should be used to make an independent determination of the methods to safeguard workers and the environment. The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For these reasons we do not assume responsibility and expressly disclaim any liability for loss, damage, or expense arising out of or in any way connected with handling, storage, use, or disposal of this product. If the product is used as a component in another product, this SDS may not be applicable. It is the responsibility of the user to comply with all Federal, State, and Local laws and regulations.