1. Identification of the substance/mixture and of the company/undertaking

Product name	Production Activator	
Product code	12303S	Formula date: 2004-09-14
Intended use	Hardener for professional use	
	Axalta Coating Systems, LLC Applied Corporate Center 50 Applied Bank Boulevard, Suite 300 US Glen Mills, PA 19342	
Telephone	Product information Medical emergency Transportation emergency	(855) 6-AXALTA (855) 274-5698 (800) 424-9300 (CHEMTREC)

2. Hazards identification

This preparation is hazardous per the following GHS criteria

GHS-Classification

Flammable liquids	Category 3
Skin sensitisation	Category 1
Target Organ Systemic Toxicant - Single exposure	Category 3

GHS-Labelling

Hazard symbols

Signal word: Warning

Hazard statements

Flammable liquid and vapour.
May cause an allergic skin reaction.
May cause respiratory irritation.
May cause drowsiness or dizziness.

Precautionary statements

Keep away from heat/sparks/open flames/hot surfaces. No smoking.
Ground/bond container and receiving equipment.
Use explosion-proof electrical/ventilating/lighting equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Avoid breathing dust/ vapours/ spray.
Use only outdoors or in a well-ventilated area.
Contaminated work clothing should not be allowed out of the workplace.
Wear protective gloves/protective clothing/eye protection/face protection.
IF ON SKIN: Wash with plenty of soap and water.
IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF exposed or if you feel unwell: Call a POISON CENTER or doctor/ physician.
Specific treatment (see supplemental first aid instructions on this label).

If skin irritation or rash occurs: Get medical advice/ attention.
Wash contaminated clothing before reuse.
Store in a well-ventilated place. Keep container tightly closed.
Store locked up.
Dispose of contents/container in accordance with local regulations.

Other hazards which do not result in classification
Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

The following percentage of the mixture consists of ingredient(s) with unknown acute toxicity:
0 %

3. Composition/information on ingredients

Mixture of synthetic resins and solvents

Components

CAS-No.	Chemical name	Concentration
28182-81-2	Aliphatic polyisocyanate resin	48 - 59%
110-43-0	Methyl amyl ketone	15 - 26%
123-86-4	Butyl acetate	4 - 15%
53880-05-0	Isophorone diisocyanate homopolymer	4 - 15%
624-54-4	N-pentyl propionate	4 - 15%

Any concentration shown as a range is due to batch variation.
Non-regulated ingredients 0.1 - 1.0%
OSHA Hazardous: Yes

4. First aid measures

Eye contact
Remove contact lenses. Irrigate copiously with clean, fresh water for at least 15 minutes, holding the eyelids apart. Seek medical advice.

Skin contact
Do NOT use solvents or thinners. Take off all contaminated clothing immediately. Wash skin thoroughly with soap and water or use recognized skin cleanser. If skin irritation persists, call a physician.

Inhalation
Avoid inhalation of vapour or mist. Move to fresh air in case of accidental inhalation of vapours. If breathing is irregular or stopped, administer artificial respiration. If unconscious place in recovery position and seek medical advice. If symptoms persist, call a physician.

Ingestion
If swallowed, seek medical advice immediately and show this safety data sheet (SDS) or product label. Do NOT induce vomiting. Keep at rest.

Most Important Symptoms/effects, acute and delayed

Inhalation

May cause nose and throat irritation. May cause nervous system depression characterized by the following progressive steps: headache, dizziness, nausea, staggering gait, confusion, unconsciousness. Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage. Exposure to isocyanates may cause respiratory sensitization. This effect may be permanent. Symptoms include an asthma-like reaction with shortness of breath, wheezing, cough or permanent lung sensitization. This effect may be delayed for several hours after exposure. Repeated overexposure to isocyanates may cause a decrease in lung function, which may be permanent. Individuals with lung or breathing problems or prior reactions to isocyanates must not be exposed to vapors or spray mist of this product.

Ingestion
May result in gastrointestinal distress.

Skin or eye contact
May cause irritation or burning of the eyes. Repeated or prolonged liquid contact may cause skin irritation with discomfort and dermatitis. Skin contact my cause skin sensitization.

Indication of Immediate medical attention and special treatment needed if necessary
No data available on the product. See section 3 and 11 for hazardous ingredients found in the product.

5. Firefighting measures

Suitable extinguishing media
Universal aqueous film-forming foam, Carbon dioxide (CO2), Dry chemical

Extinguishing media which shall not be used for safety reasons
High volume water jet

Hazardous combustion products
CO, CO2, smoke, and oxides of any heavy metals that are reported in “Composition, Information on Ingredients” section.

Fire and Explosion Hazards
Flammable liquid. Vapor/air mixture will burn when an ignition source is present.

Special Protective Equipment and Fire Fighting Procedures
Full protective flameproof clothing should be worn as appropriate. Wear self-contained breathing apparatus for firefighting if necessary. In the event of fire, cool tanks with water spray. Do not allow run-off from fire fighting to enter public sewer systems or public waterways.

6. Accidental release measures

Procedures for cleaning up spills or leaks
Ventilate area. Remove sources of ignition. Do not breathe vapors. Do not get in eyes or on skin. Wear a positive-pressure, supplied-air respirator (NIOSH approved TC-19C), eye protection, gloves and protective clothing. Pour liquid decontamination solution over the spill and allow to sit at least 10 minutes. Typical decontamination solutions for isocyanate containing materials are: 20% Surfactant (Tergitol TM 10) and 80% Water OR 0-10% Ammonia, 2-5% Detergent and Water (balance) Confine and remove with inert absorbent. Pressure can be generated. Do not seal waste containers for 48 hours to allow C02 to vent. After 48 hours, material may be sealed and disposed of properly.

Environmental precautions
Do not let product enter drains. Notify the respective authorities in accordance with local law in the case of contamination of rivers, lakes or waste water systems.

7. Handling and storage

Precautions for safe handling

Observe label precautions. Keep away from heat, sparks, flame, static discharge and other sources of ignition. VAPORS MAY CAUSE FLASH FIRE. Close container after each use. Ground containers when pouring. Do not transfer contents to bottles or unlabeled containers. Wash thoroughly after handling and before eating or smoking. Do not store above 49 °C (120 °F). If material is a coating: do not sand, flame cut, braze or weld dry coating without a NIOSH approved air purifying respirator with particulate filters or appropriate ventilation, and gloves. Combustible dust clouds may be created where operations produce fine material (dust). Avoid formation of significant deposits of material as they may become airborne and form combustible dust clouds. Build up of fine material should be cleaned using gentle sweeping or vacuuming in accordance with best practices. Cleaning methods (e.g. compressed air) which can generate potentially combustible dust clouds should not be used.

Advice on protection against fire and explosion
Solvent vapours are heavier than air and may spread along floors. Vapors may form explosive mixtures with air and will burn when an ignition source is present. Always keep in containers of same material as the original one. Never use pressure to empty container: container is not a pressure vessel. The accumulation of contaminated rags may result in spontaneous combustion. Good housekeeping standards and regular safe removal of waste materials will minimize the risks of spontaneous combustion and other fire hazards.

Storage

Requirements for storage areas and containers
Observe label precautions. Store in a dry, well ventilated place away from sources of heat, ignition and direct sunlight. No smoking. Prevent unauthorized access. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Advice on common storage
Store separately from oxidizing agents, strongly alkaline and strongly acidic materials, amines, alcohols and water. Precautions should be taken to avoid exposure to atmospheric humidity or water. Evolution of CO2 in closed containers causes overpressure and produces a risk of bursting.

Additional information on storage conditions
Precautions should be taken to avoid exposure to atmospheric humidity or water. Humid air and/or water will produce carbon dioxide which will pressurize the container. Open drum carefully as content may be under pressure.

OSHA/NFPA Storage Classification: IC

8. Exposure controls/personal protection

Engineering controls and work practices
Provide adequate ventilation.

National occupational exposure limits

CAS-No.	Chemical name	Source	Time	Type	Value	Note
110-43-0	Methyl amyl ketone	ACGIH	8 hr	TWA	50 ppm	
		OSHA	8 hr	TWA	100 ppm	
123-86-4	Butyl acetate	ACGIH	15 min	STEL	200 ppm	
		ACGIH	8 hr	TWA	150 ppm	
		OSHA	8 hr	TWA	150 ppm	

Glossary

CEIL	Ceiling exposure limit
STEL	Short term exposure limit
TL	Threshold limits
TLV	Threshold Limit Value
TWA	Time weighted average
TWAE	Time-Weighted Average

Protective equipment
Personal protective equipment should be worn to prevent contact with eyes, skin or clothing.

Respiratory protection

Do not breathe vapors or mists. Wear a positive-pressure, supplied air respirator (NIOSH approved TC-19C), while mixing activator with paint, during application and until all vapors and spray mists are exhausted. Follow respirator manufacturer s directions for respirator use. Do not permit anyone without protection in the painting area. Refer to the hardener/activator label instructions for further information. Individuals with history of lung or breathing problems or prior reaction to isocyanates should not use or be exposed to vapor or spray mist.

Eye protection
Desirable in all industrial situations. Goggles are preferred to prevent eye irritation. If safety glasses are substituted, include splash guard or side shields.

Skin and body protection
Neoprene gloves and coveralls are recommended.

Hygiene measures
Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.

Environmental exposure controls
Do not let product enter drains.
For ecological information, refer to Ecological Information Section 12.

9. Physical and chemical properties

Appearance

Form: liquid **Colour:** clear **Odour:** Characteristic Paint Odor

Flash point	75 °F	
Lower Explosive Limit	1.1 %	
Upper Explosive Limit	7.9 %	
Evaporation rate	Slower than Ether	
Vapor pressure of principal solvent	1.7 hPa	
Water solubility	partly miscible	
Vapor density of principal solvent (Air = 1)	3.9	
Approx. Boiling Range	126 °C	
Approx. Freezing Range	-36 – -24 °C	
Gallon Weight (lbs/gal)	8.51	
Specific Gravity	1.02	
Percent Volatile By Volume	42.94%	
Percent Volatile By Weight	35.05%	
Percent Solids By Volume	57.07%	
Percent Solids By Weight	64.96%	
pH (waterborne systems only)	Not applicable	
Partition coefficient: n-octanol/water	No data available	
Ignition temperature	375 °C	DIN 51794
Decomposition temperature	Not applicable.	
Viscosity (23 °C)	Not applicable.	ISO 2431-1993
VOC* less exempt (lbs/gal)	3.0	
VOC* as packaged (lbs/gal)	3.0	

* VOC less exempt (theoretical) and VOC as packaged (theoretical) are based upon the VOC of the packaged material at the point of manufacture.

10. Stability and reactivity

Stability

Stable

Conditions to avoid

Stable under recommended storage and handling conditions (see section 7).

Materials to avoid

Keep away from oxidizing agents and strongly acid or alkaline materials. Amines and alcohols cause exothermic reactions. Mixture reacts slowly with water resulting in evolution of CO2. Evolution of CO2 in closed containers causes overpressure and produces a risk of bursting.

Hazardous decomposition products

When exposed to high temperatures may produce hazardous decomposition products such as carbon monoxide and dioxide, smoke, oxides of nitrogen as well as hydrogen cyanide, amines, alcohols and water.

Hazardous Polymerization

Will not occur.

Sensitivity to Static Discharge

Solvent vapors in air may explode if static grounding and bonding is not used during transfer of this product.

Sensitivity to Mechanical Impact

None known.

11. Toxicological information

Information on likely routes of exposure

Inhalation
May cause nose and throat irritation. May cause nervous system depression characterized by the following progressive steps: headache, dizziness, nausea, staggering gait, confusion, unconsciousness. Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage. Exposure to isocyanates may cause respiratory sensitization. This effect may be permanent. Symptoms include an asthma-like reaction with shortness of breath, wheezing, cough or permanent lung sensitization. This effect may be delayed for several hours after exposure. Repeated overexposure to isocyanates may cause a decrease in lung function, which may be permanent. Individuals with lung or breathing problems or prior reactions to isocyanates must not be exposed to vapors or spray mist of this product.

Ingestion
May result in gastrointestinal distress.

Skin or eye contact
May cause irritation or burning of the eyes. Repeated or prolonged liquid contact may cause skin irritation with discomfort and dermatitis.

Delayed and immediate effects and also chronic effects from short and long term exposure:

Acute oral toxicity
not hazardous

Acute dermal toxicity
not hazardous

Acute inhalation toxicity
Not classified according to GHS criteria

% of unknown composition: 0 %

Skin corrosion/irritation
Not classified according to GHS criteria

Serious eye damage/eye irritation
Not classified according to GHS criteria

Respiratory sensitisation
Not classified according to GHS criteria

Skin sensitisation

Aliphatic polyisocyanate resin	Category 1
Isophorone diisocyanate homopolymer	Category 1B

Germ cell mutagenicity
Not classified according to GHS criteria

Carcinogenicity
Not classified according to GHS criteria

Toxicity for reproduction
Not classified according to GHS criteria

Target Organ Systemic Toxicant - Single exposure

- **Inhalation**

  Narcotic effects Methyl amyl ketone

  Respiratory system Aliphatic polyisocyanate resin

Target Organ Systemic Toxicant - Repeated exposure
Not classified according to GHS criteria

Aspiration toxicity
Not classified according to GHS criteria

Numerical measures of toxicity (acute toxicity estimation (ATE),etc.)
No information available.

Symptoms related to the physical, chemical and toxicological characteristics
Based on the properties of the isocyanate components and considering toxicological data on similar products, the following applies: This formulation may cause acute irritation and/or sensitization of the respiratory system leading to an asthmatic condition, wheeziness and a tightness of the chest. Sensitized persons may subsequently show asthmatic symptoms when exposed to atmospheric concentrations well below the OEL. Repeated exposure may lead to permanent respiratory disability. Exposure to component solvents vapours concentration in excess of the stated occupational exposure limit may result in adverse health effect such as mucous membrane and respiratory system irritation and adverse effect on kidney, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness. Through skin resorbtion, solvents can cause some of the effects described here. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and absorption through the skin. The liquid splashed in the eyes may cause irritation and reversible damage. Components of the product may be absorbed into the body through the skin.

Whether the hazardous chemical is listed by NTP, IARC or OSHA

12. Ecological information

There are no data available on the product itself. The product should not be allowed to enter drains or watercourses.

13. Disposal considerations

Waste Disposal Method
Do not allow material to contaminate ground water systems. Incinerate or otherwise dispose of waste material in accordance with Federal, State, Provincial, and local requirements. Do not incinerate in closed containers.

14. Transport information

International transport regulations

IMDG (Sea transport)

UN number:	1263
Proper shipping name:	PAINT RELATED MATERIAL
Hazard Class:	3
Subsidiary Hazard Class:	Not applicable.
Packing group:	III
Marine Pollutant:	no
EmS:	F-E,S-E

ICAO/IATA (Air transport)

UN number:	1263
Proper shipping name:	PAINT RELATED MATERIAL
Hazard Class:	3
Subsidiary Hazard Class:	Not applicable.
Packing group:	III

DOT

UN number:	1263
Proper shipping name:	PAINT RELATED MATERIAL
Hazard Class:	3
Subsidiary Hazard Class:	Not applicable.
Packing group:	III
Marine Pollutant:	no

The transport information is for bulk shipments. Exceptions may apply for smaller containers.

Matters needing attention for transportation
Confirm that there is no breakage, corrosion, or leakage from the container before shipping. Be sure to prevent damage to cargo by loading so as to avoid falling, dropping, or collapse. Ship in appropriate containers with denotation of the content in accordance with the relevant statutes and rules.

15. Regulatory information

TSCA Status
In compliance with TSCA Inventory requirements for commercial purposes.

DSL Status
All components of the mixture are listed on the DSL.

Photochemical Reactivity
Non-photochemically reactive

Regulatory information

		EPCRA					CERCLA	CAA
CAS #	Ingredient	302	TPQ	RQ	311/312	313	RQ(lbs)	HAP
28182-81-2	Aliphatic polyisocyanate resin	N	NR	NR	A,C,R	N	NR	N
110-43-0	Methyl amyl ketone	N	NR	NR	A,C,F	N	NR	N
123-86-4	Butyl acetate	N	NR	NR	A,C,F	N	NR	N
53880-05-0	Isophorone diisocyanate homopolymer	N	NR	NR	A,C,F,N,P,R	N	NR	N
624-54-4	N-pentyl propionate	N	NR	NR	NA	N	NR	N

Key:

EPCRA	Emergency Planning and Community Right-to-know Act (aka Title III, SARA)
302	Extremely hazardous substances
311/312 Categories	F = Fire Hazard R = Reactivity Hazard P = Pressure Related Hazard A = Acute Hazard C = Chronic Hazard
313 Information	Section 313 Supplier Notification - The chemicals listed above with a 'Y' in the 313 column are subject to reporting requirements of Section 313 of the Emergency Planning and Community Right-to-Know act of 1986 and of 40 CFR 372.
CERCLA	Comprehensive Emergency Response, Compensation and Liability Act of 1980.
HAP	Listed as a Clean Air Act Hazardous Air Pollutant.
TPQ	Threshold Planning Quantity.
RQ	Reportable Quantity
NA	not available
NR	not regulated

16. Other information

HMIS rating H: 3 F: 3 R: 1

Glossary of Terms:

ACGIH	American Conference of Governmental Industrial Hygienists.
IARC	International Agency for Research on Cancer.
NTP	National Toxicology Program.
OEL	Occupational Exposure Limit
OSHA	Occupational Safety and Health Administration.
STEL	Short term exposure limit
TWA	Time-weighted average.
PNOR	Particles not otherwise regulated.
PNOC	Particles not otherwise classified.

NOTE: The list (above) of glossary terms may be modified.

Notice from Axalta Coating Systems :
The document reflects information provided to Axalta Coating Systems by its suppliers. Information is accurate to the best of our knowledge and is subject to change as new data is received by Axalta Coating Systems. Persons receiving this information should make their own determination as to its suitability for their purposes prior to use.
The information on this Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.

SDS prepared by: Axalta Coating Systems Regulatory Affairs

Report version

Version	Changes
9.1	9, 16

Revision Date: 2018-09-21

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