SAFETY DATA SHEET

Date of issue/Date of revision 2 November 2019
Version 17

Section 1. Identification

Product name : CA 7233A BASE COMPONENT
Product code : CA 7233A BASE COMPONENT
Other means of identification : Not available
Product type : Liquid

Relevant identified uses of the substance or mixture and uses advised against

Product use : Industrial applications
Use of the substance/ mixture : Coating
Uses advised against : Not applicable

Manufacturer : PPG Aerospace PRC-DeSoto
12780 San Fernando Road
Sylmar CA 91342
Phone: 818 362 6711

Emergency telephone number : (412) 434-4515 (U S)
(514) 645-1320 (Canada)
01-800-00-21-400 (Mexico)

Section 2. Hazards identification

OSHA/HCS status : This material is considered ha ardous by the OSHA Ha ard Communication Standard (29 CFR 1910 1200)

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 2
ACUTE TOXICITY (oral) - Category 4
SKIN IRRITATION - Category 2
SERIOUS EYE DAMAGE - Category 1
SKIN SENSITI ATION - Category 1
CARCINOGENICITY - Category 1A
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1

Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 37 9% (Oral) 63 9% (Dermal) 63 9% (Inhalation)

Section 2. Hazards identification

Hazard pictograms :

Signal word : Danger

Hazard statements : Highly flammable liquid and vapor
Harmful if swallowed
Causes serious eye damage
Causes skin irritation
May cause an allergic skin reaction
May cause cancer
May cause respiratory irritation
May cause drowsiness or di iness
Causes damage to organs through prolonged or repeated exposure

Section 2. Hazards identification

Supplemental label elements : Sanding and grinding dusts may be harmful if inhaled This product contains crystalline silica which can cause lung cancer or silicosis The risk of cancer depends on the duration and level of exposure to dust from sanding surfaces or mist from spray applications Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage Inhalation of vapor/aerosol concentrations above the recommended exposure limits causes headaches drowsiness and nausea and may lead to unconsciousness or death This product either contains formaldehyde or is capable of releasing formaldehyde above 0 5 ppm under certain conditions Formaldehyde is a known cancer ha ard a skin sensiti er and a respiratory sensiti er NTP IARC and OSHA have classified chromium (+6) compounds as carcinogenic Avoid contact with skin and clothing Wash thoroughly after handling Emits toxic fumes when heated

Hazards not otherwise classified : Prolonged or repeated contact may dry skin and cause irritation

Section 3. Composition/information on ingredients

Substance/mixture : Mixture
Product name : CA 7233A BASE COMPONENT

Ingredient name	%	CAS number
crystalline silica respirable powder (<10 microns)	≥20 - ≤50	14808-60-7
strontium chromate	≥20 - ≤50	7789-06-2
butan-1-ol	≥20 - ≤34	71-36-3
proprietary polyaminoamide	≥5 0 - ≤10	Not available
titanium dioxide	≥1 0 - ≤5 0	13463-67-7
ben yl alcohol	≥1 0 - ≤5 0	100-51-6
xylene	≥1 0 - ≤4 7	1330-20-7
m-phenylenebis(methylamine)	≥0 10 - ≤2 3	1477-55-0
ethylben ene	<1 0	100-41-4
barium chromate	<1 0	10294-40-3

SUB codes represent substances without registered CAS Numbers

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 current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

If ingestion irritation any type of overexposure or symptoms of overexposure occur during or persists after use of this product contact a POISON CONTROL CENTER EMERGENCY ROOM OR PHYSICIAN immediately; have Safety Data Sheet information available Never give anything by mouth to an unconscious or convulsing person

Description of necessary first aid measures

Eye contact : Check for and remove any contact lenses Immediately flush eyes with running water for at least 15 minutes keeping eyelids open Seek immediate medical attention

Inhalation : Remove to fresh air Keep person warm and at rest If not breathing if breathing is irregular or if respiratory arrest occurs provide artificial respiration or oxygen by trained personnel

Section 4. First aid measures

Skin contact : Remove contaminated clothing and shoes Wash skin thoroughly with soap and water or use recogni ed skin cleanser Do NOT use solvents or thinners

Ingestion : If swallowed seek medical advice immediately and show this container or label Keep person warm and at rest Do NOT induce vomiting

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Causes serious eye damage

Inhalation : Can cause central nervous system (CNS) depression May cause drowsiness or di iness May cause respiratory irritation

Skin contact : Causes skin irritation Defatting to the skin May cause an allergic skin reaction

Ingestion : Harmful if swallowed Can cause central nervous system (CNS) depression

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
pain
watering
redness

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
di iness/vertigo
unconsciousness

Skin contact : Adverse symptoms may include the following:
pain or irritation
redness
dryness
cracking
blistering may occur

Ingestion : Adverse symptoms may include the following:
stomach pains

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : In case of inhalation of decomposition products in a fire symptoms may be delayed The exposed person may need to be kept under medical surveillance for 48 hours

Specific treatments : No specific treatment

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training If it is suspected that fumes are still present the rescuer should wear an appropriate mask or self-contained breathing apparatus It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation Wash contaminated clothing thoroughly with water before removing it or wear gloves

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use dry chemical CO_2, water spray (fog) or foam

Unsuitable extinguishing media : Do not use water jet

Specific hazards arising from the chemical : Highly flammable liquid and vapor In a fire or if heated a pressure increase will occur and the container may burst with the risk of a subsequent explosion Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back Runoff to sewer may create fire or explosion ha ard This material is very toxic to aquatic life with long lasting effects Fire water contaminated with this material must be contained and prevented from being discharged to any waterway sewer or drain

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon oxides
nitrogen oxides
metal oxide/oxides
Formaldehyde

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire No action shall be taken involving any personal risk or without suitable training Move containers from fire area if this can be done without risk Use water spray to keep fire-exposed containers cool

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : 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 ha ard area Do not breathe vapor or mist Provide adequate ventilation Wear appropriate respirator when ventilation is inadequate Put on appropriate personal protective equipment

For emergency responders : If speciali ed 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 non-emergency personnel"

Environmental 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)

Methods and materials for containment and cleaning up

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

Section 6. Accidental release measures

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 ha ard as the spilled product Note: see Section 1 for emergency contact information and Section 13 for waste disposal

Section 7. Handling and storage

Protective measures Put on appropriate personal protective equipment (d and drink

Advice on general 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

Conditions for safe storage, including any incompatibilities : Do not store above the following temperature: 35°C (95°F) 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 oxidi ing 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 controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
crystalline silica respirable powder (<10 microns)	**ACGIH TLV (United States, 3/2018).** TWA: 0 025 mg/m³ 8 hours Form: Respirable **OSHA PEL Z3 (United States, 6/2016).** TWA: 10 mg/m³ / (%SiO2+2) 8 hours Form: Respirable TWA: 250 mppcf / (%SiO2+5) 8 hours Form: Respirable **OSHA PEL (United States, 5/2018).** TWA: 50 µg/m³ 8 hours Form: Respirable dust
strontium chromate	**ACGIH TLV (United States, 3/2018).** TWA: 0 0005 mg/m³ (measured as Cr) 8 hours **OSHA PEL Z2 (United States, 2/2013).** CEIL: 1 mg/10m³ **OSHA PEL (United States, 5/2018).** TWA: 0 005 mg/m³ (as Cr) 8 hours
butan-1-ol	**ACGIH TLV (United States, 3/2018).** TWA: 20 ppm 8 hours **OSHA PEL (United States, 5/2018).** TWA: 300 mg/m³ 8 hours TWA: 100 ppm 8 hours
proprietary polyaminoamide	None
titanium dioxide	**OSHA PEL (United States, 5/2018).** TWA: 15 mg/m³ 8 hours Form: Total dust **ACGIH TLV (United States, 3/2018).** TWA: 10 mg/m³ 8 hours
ben yl alcohol	**IPEL (PPG).** TWA: 10 ppm STEL: 50 ppm
xylene	**ACGIH TLV (United States, 3/2018).** STEL: 651 mg/m³ 15 minutes STEL: 150 ppm 15 minutes TWA: 434 mg/m³ 8 hours TWA: 100 ppm 8 hours **OSHA PEL (United States, 5/2018).** TWA: 435 mg/m³ 8 hours TWA: 100 ppm 8 hours
m-phenylenebis(methylamine)	**ACGIH TLV (United States, 3/2018).** **Absorbed through skin.** C: 0 1 mg/m³
ethylben ene	**ACGIH TLV (United States, 3/2018).** TWA: 20 ppm 8 hours **OSHA PEL (United States, 5/2018).** TWA: 435 mg/m³ 8 hours TWA: 100 ppm 8 hours
barium chromate	

Section 8. Exposure controls/personal protection

	ACGIH TLV (United States, 3/2018). TWA: 0 0002 mg/m³ (measured as Cr) 8 hours Form: Inhalable fraction STEL: 0 0005 mg/m³ (measured as Cr) 15 minutes Form: Inhalable fraction **OSHA PEL (United States, 5/2018).** TWA: 0 005 mg/m³ (as Cr) 8 hours **OSHA PEL Z2 (United States, 2/2013).** CEIL: 1 mg/10m³ **OSHA PEL (United States).** TWA: 5 mg/m³

Key to abbreviations

A	=	Acceptable Maximum Peak	S	=	Potential skin absorption
ACGIH	=	American Conference of Governmental Industrial Hygienists	SR	=	Respiratory sensiti ation
C	=	Ceiling Limit	SS	=	Skin sensiti ation
F	=	Fume	STEL	=	Short term Exposure limit values
IPEL	=	Internal Permissible Exposure Limit	TD	=	Total dust
OSHA	=	Occupational Safety and Health Administration	TLV	=	Threshold Limit Value
R	=	Respirable	TWA	=	Time Weighted Average
	=	OSHA 29 CFR 1910 1200 Subpart - Toxic and Ha ardous Substances			

Consult local authorities for acceptable exposure limits.

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 ha ardous substances will also be required

Appropriate engineering 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

Environmental 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

Individual protection 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 Contaminated work clothing should not be allowed out of the workplace Wash contaminated clothing before reusing Ensure that eyewash stations and safety showers are close to the workstation location

Eye/face protection : Chemical splash goggles and face shield

Skin protection

Product name **CA 7233A BASE COMPONENT**

Section 9. Physical and chemical properties

VOC : 365 g/l

% Solid. (w/w) : 73

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients

Chemical stability : The product is stable

Possibility of hazardous reactions : Under normal conditions of storage and use ha ardous reactions will not occur

Conditions to avoid : When exposed to high temperatures may produce ha ardous decomposition products Refer to protective measures listed in sections 7 and 8

Incompatible materials : Keep away from the following materials to prevent strong exothermic reactions: oxidi ing agents strong alkalis strong acids

Hazardous decomposition products : Decomposition products may include the following materials: carbon monoxide carbon dioxide smoke oxides of nitrogen

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
strontium chromate	LD50 Oral	Rat	3118 mg/kg	-
butan-1-ol	LC50 Inhalation Vapor	Rat	24000 mg/m³	4 hours
	LC50 Inhalation Vapor	Rat	8000 ppm	4 hours
	LD50 Dermal	Rabbit	3400 mg/kg	-
	LD50 Oral	Rat	790 mg/kg	-
titanium dioxide	LC50 Inhalation Dusts and mists	Rat	>6 82 mg/l	4 hours
	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
ben yl alcohol	LC50 Inhalation Dusts and mists	Rat	>4178 mg/m³	4 hours
	LD50 Dermal	Rabbit	2000 mg/kg	-
	LD50 Oral	Rat	1 23 g/kg	-
xylene	LD50 Dermal	Rabbit	>1 7 g/kg	-
	LD50 Oral	Rat	4 3 g/kg	-
m-phenylenebis (methylamine)	LC50 Inhalation Gas	Rat	700 ppm	1 hours
	LD50 Dermal	Rat - Male Female	>3100 mg/kg	-
	LD50 Oral	Rat	930 mg/kg	-
ethylben ene	LC50 Inhalation Vapor	Rat	17 8 mg/l	4 hours
	LD50 Dermal	Rabbit	17 8 g/kg	-
	LD50 Oral	Rat	3 5 g/kg	-

Conclusion/Summary : There are no data available on the mixture itself

Section 11. Toxicological information

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
xylene	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-
m-phenylenebis (methylamine)	Skin - Severe irritant	Rat	-	4 hours	4 hours

Conclusion/Summary

Skin : There are no data available on the mixture itself

Eyes : There are no data available on the mixture itself

Respiratory : There are no data available on the mixture itself

Sensitization

Product/ingredient name	Route of exposure	Species	Result
m-phenylenebis (methylamine)	skin	Mouse	Sensiti ing

Conclusion/Summary

Skin : There are no data available on the mixture itself

Respiratory : There are no data available on the mixture itself

Mutagenicity

Product/ingredient name	Test	Experiment	Result
proprietary polyaminoamide	OECD 471 Bacterial Reverse Mutation Test	Subject: Bacteria	Negative

Conclusion/Summary : **proprietary polyaminoamide**: Not mutagenic in Ames test

Carcinogenicity

Conclusion/Summary : There are no data available on the mixture itself

Classification

Product/ingredient name	OSHA	IARC	NTP
crystalline silica respirable powder (<10 microns)	-	1	Known to be a human carcinogen
strontium chromate	+	1	Known to be a human carcinogen
titanium dioxide	-	2B	-
xylene	-	3	-
ethylben ene	-	2B	-
barium chromate	+	1	Known to be a human carcinogen

Carcinogen Classification code:

IARC: 1, 2A, 2B, 3, 4
NTP: Known to be a human carcinogen; Reasonably anticipated to be a human carcinogen
OSHA: +
Not listed/not regulated: -

Reproductive toxicity

Conclusion/Summary : There are no data available on the mixture itself

Teratogenicity

Conclusion/Summary : There are no data available on the mixture itself

Section 11. Toxicological information

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
butan-1-ol	Category 3	Not applicable	Narcotic effects
	Category 3	Not applicable	Respiratory tract irritation
proprietary polyaminoamide	Category 3	Not applicable	Respiratory tract irritation
xylene	Category 3	Not applicable	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
crystalline silica respirable powder (<10 microns)	Category 1	Inhalation	Not determined
strontium chromate	Category 2	Not determined	Not determined
ethylben ene	Category 2	Not determined	hearing organs
barium chromate	Category 2	Not determined	Not determined

Target organs : Contains material which causes damage to the following organs: blood kidneys liver heart spleen brain bone marrow central nervous system (CNS)
Contains material which may cause damage to the following organs: lungs the nervous system gastrointestinal tract cardiovascular system upper respiratory tract immune system skin ears eye lens or cornea

Aspiration hazard

Name	Result
xylene	ASPIRATION HA ARD - Category 1
ethylben ene	ASPIRATION HA ARD - Category 1

Information on the likely routes of exposure

Potential acute health effects

Eye contact : Causes serious eye damage

Inhalation : Can cause central nervous system (CNS) depression May cause drowsiness or di iness May cause respiratory irritation

Skin contact : Causes skin irritation Defatting to the skin May cause an allergic skin reaction

Ingestion : Harmful if swallowed Can cause central nervous system (CNS) depression

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
pain
watering
redness

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
di iness/vertigo
unconsciousness

Section 11. Toxicological information

Skin contact : Adverse symptoms may include the following:
pain or irritation
redness
dryness
cracking
blistering may occur

Ingestion : Adverse symptoms may include the following:
stomach pains

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

Conclusion/Summary : There are no data available on the mixture itself This product either contains formaldehyde or is capable of releasing formaldehyde above 0 5 ppm under certain conditions Formaldehyde is a known cancer ha ard a skin sensiti er and a respiratory sensiti er This product contains crystalline silica which can cause lung cancer or silicosis The risk of cancer depends on the duration and level of exposure to dust from sanding surfaces or mist from spray applications This product contains TiO2 which has been classified as a GHS Carcinogen Category 2 based on its IARC 2B classification For many PPG products TiO2 is utili ed as a raw material in a liquid coating formulation In this case the TiO2 particles are bound in a matrix with no meaningful potential for human exposure to unbound particles of TiO2 when the product is applied with a brush or roller Sanding the coating surface or mist from spray applications may be harmful depending on the duration and level of exposure and require the use of appropriate personal protective equipment and/or engineering controls (see Section 8) Can form nitrosamines in the presence of certain organic materials and if heated Exposure to component solvent vapor concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys liver and central nervous system Symptoms and signs include headache di iness fatigue muscular weakness drowsiness and in extreme cases loss of consciousness Solvents may cause some of the above effects by absorption through the skin There is some evidence that repeated exposure to organic solvent vapors in combination with constant loud noise can cause greater hearing loss than expected from exposure to noise alone If splashed in the eyes the liquid may cause irritation and reversible damage Ingestion may cause nausea diarrhea and vomiting This takes into account where known delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral inhalation and dermal routes of exposure and eye contact

Short term exposure

Potential immediate effects : There are no data available on the mixture itself

Potential delayed effects : There are no data available on the mixture itself

Long term exposure

Potential immediate effects : There are no data available on the mixture itself

Potential delayed effects : There are no data available on the mixture itself

Potential chronic health effects

General : Causes damage to organs through prolonged or repeated exposure Prolonged or repeated contact can defat the skin and lead to irritation cracking and/or dermatitis Once sensiti ed a severe allergic reaction may occur when subsequently exposed to very low levels

Carcinogenicity : May cause cancer Risk of cancer depends on duration and level of exposure

Section 11. Toxicological information

Mutagenicity : No known significant effects or critical ha ards

Teratogenicity : No known significant effects or critical ha ards

Developmental effects : No known significant effects or critical ha ards

Fertility effects : No known significant effects or critical ha ards

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
CA 7233A BASE COMPONENT	755	3408 4	117012 5	142	9 1
strontium chromate	500	N/A	N/A	N/A	N/A
butan-1-ol	790	3400	N/A	24	N/A
ben yl alcohol	1230	2000	N/A	N/A	1 5
xylene	4300	1100	N/A	11	1 5
m-phenylenebis(methylamine)	930	2500	4500	N/A	N/A
ethylben ene	3500	17800	N/A	17 8	1 5
barium chromate	500	N/A	N/A	11	1 5

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
butan-1-ol	Acute LC50 1376 mg/l	Fish	96 hours
titanium dioxide	Acute LC50 >100 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
ethylben ene	Acute LC50 150 to 200 mg/l Fresh water	Fish	96 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
ben yl alcohol	-	-	Readily
xylene	-	-	Readily
ethylben ene	-	-	Readily

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
butan-1-ol	0 88	-	low
ben yl alcohol	1 1	-	low
xylene	3 16	7 4 to 18 5	low
m-phenylenebis(methylamine)	0 18	2 69	low
ethylben ene	3 15	79 43	low

Mobility in soil

Soil/water partition coefficient (K_{OC}) : Not available

Section 12. Ecological information

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimi ed 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

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees. Section 6. Accidental release measures

14. Transport information

	DOT	IMDG	IATA
UN number	UN1263	UN1263	UN1263
UN proper shipping name	PAINT	PAINT	PAINT
Transport hazard class (es)	3	3	3
Packing group	II	II	II
Environmental hazards	No	Yes	Yes The environmentally ha ardous substance mark is not required
Marine pollutant substances	Not applicable	(strontium chromate Formaldehyde oligomeric reaction products with phenol and m-phenylenebis (methylamine))	Not applicable
Product RQ (lbs)	38 393	Not applicable	Not applicable
RQ substances	(strontium chromate xylene)	Not applicable	Not applicable

Additional information

DOT : Package si es shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements

IMDG : The marine pollutant mark is not required when transported in si es of ≤5 L or ≤5 kg

14. Transport information

IATA : The environmentally ha ardous substance mark may appear if required by other transportation regulations

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure Ensure that persons transporting the product know what to do in the event of an accident or spillage

Section 15. Regulatory information

United States

United States inventory (TSCA 8b) : All components are listed or exempted

United States - TSCA 12(b) - Chemical export notification:
strontium chromate Annual notification

SARA 302/304

SARA 304 RQ : Not applicable

Composition/information on ingredients

No products were found

SARA 311/312

Classification : FLAMMABLE LIQUIDS - Category 2
ACUTE TOXICITY (oral) - Category 4
SKIN IRRITATION - Category 2
SERIOUS EYE DAMAGE - Category 1
SKIN SENSITI ATION - Category 1
CARCINOGENICITY - Category 1A
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1
HNOC - Defatting irritant

Composition/information on ingredients

Name	%	Classification
crystalline silica respirable powder (<10 microns)	≥20 - ≤50	CARCINOGENICITY - Category 1A SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (inhalation) - Category 1
strontium chromate	≥20 - ≤50	ACUTE TOXICITY (oral) - Category 4 CARCINOGENICITY - Category 1A SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
butan-1-ol	≥20 - ≤34	FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (oral) - Category 4 SKIN IRRITATION - Category 2 SERIOUS EYE DAMAGE - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)

Section 15. Regulatory information

		(Narcotic effects) - Category 3 HNOC - Defatting irritant
proprietary polyaminoamide	≥5 0 - ≤10	COMBUSTIBLE DUSTS SKIN IRRITATION - Category 2 SERIOUS EYE DAMAGE - Category 1 SKIN SENSITI ATION - Category 1B SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
titanium dioxide	≥1 0 - ≤5 0	CARCINOGENICITY - Category 2
ben yl alcohol	≥1 0 - ≤5 0	ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 EYE IRRITATION - Category 2A
xylene	≥1 0 - ≤4 7	FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 ASPIRATION HA ARD - Category 1
m-phenylenebis(methylamine)	≥0 10 - ≤2 3	ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 SKIN CORROSION - Category 1B SERIOUS EYE DAMAGE - Category 1 SKIN SENSITI ATION - Category 1B
ethylben ene	<1 0	FLAMMABLE LIQUIDS - Category 2 ACUTE TOXICITY (inhalation) - Category 4 CARCINOGENICITY - Category 2 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (hearing organs) - Category 2 ASPIRATION HA ARD - Category 1 HNOC - Defatting irritant
barium chromate	<1 0	OXIDI ING SOLIDS - Category 1 ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 CARCINOGENICITY - Category 1A SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 HNOC - Avoid contact with organic materials

SARA 313

Supplier notification :

Chemical name	CAS number	Concentration
strontium chromate	7789-06-2	10 - 30
butan-1-ol	71-36-3	10 - 30
xylene	1330-20-7	1 - 5
ethylben ene	100-41-4	0 1 - 1
barium chromate	10294-40-3	0 1 - 1

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed

California Prop. 65

⚠ **WARNING**: Cancer and Reproductive Harm - www P65Warnings ca gov

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health : 3 * **Flammability** : 3 **Physical hazards** : 0

(*) - Chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on MSDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

National Fire Protection Association (U.S.A.)

Health : 3 **Flammability** : 3 **Instability** : 0

Date of previous issue : **5/17/2019**

Organization that prepared the MSDS : EHS

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmoni ed System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships 1973 as modified by the Protocol of 1978 ("Marpol" = marine pollution)
N/A = Not available
SGG = Segregation Group
UN = United Nations

Indicates information that has changed from previously issued version.

Disclaimer

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by PPG, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.

SAFETY DATA SHEET

Date of issue/Date of revision 24 September 2019
Version 15

Section 1. Identification

Product name : CA 7233B ACTIVATOR COMPONENT
Product code : CA 7233B ACTIVATOR COMPONENT
Other means of identification : Not available.
Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Product use : Industrial applications.
Use of the substance/ mixture : Hardener.
Uses advised against : Not applicable.

Manufacturer : PPG Aerospace PRC-DeSoto
12780 San Fernando Road
Sylmar, CA 91342
Phone: 818 362 6711
Emergency telephone number : (412) 434-4515 (U.S.)
(514) 645-1320 (Canada)
01-800-00-21-400 (Mexico)

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 2
SKIN IRRITATION - Category 2
EYE IRRITATION - Category 2A
SKIN SENSITIZATION - Category 1
CARCINOGENICITY - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (hearing organs) - Category 2

Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 33.8% (Inhalation)

GHS label elements

Section 2. Hazards identification

Hazard pictograms :

Signal word : Danger

Hazard statements : Highly flammable liquid and vapor.
Causes serious eye irritation.
Causes skin irritation.
May cause an allergic skin reaction.
Suspected of causing cancer.
May cause respiratory irritation.
May cause damage to organs through prolonged or repeated exposure. (hearing organs)

Precautionary statements

Prevention : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep container tightly closed. Use only outdoors or in a well-ventilated area. Do not breathe vapor. Wash hands thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.

Response : Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention. 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 attention.
Photosensitive agents : In case of accidental eye contact, avoid direct exposure to the sun or other sources of UV light as severe irritation including burns may result. These reactions can be delayed – get medical attention if pain, irritation or blistering occurs after contact. In case of accidental skin contact, avoid direct exposure to the sun or other sources of UV light as severe irritation including burns may result. These reactions can be delayed – get medical attention if pain, irritation, rash or blistering occurs after contact.

Storage : Store locked up. Store in a well-ventilated place. Keep cool.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements : Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapor/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or death. Avoid contact with skin and clothing. Wash thoroughly after handling. Emits toxic fumes when heated.

Hazards not otherwise classified : Prolonged or repeated contact may dry skin and cause irritation.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture
Product name : CA 7233B ACTIVATOR COMPONENT

Ingredient name	%	CAS number
4-chloro-α,α,α-trifluorotoluene	≥50 - ≤63	98-56-6
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin	≥20 - ≤34	25068-38-6
xylene	≥5.0 - ≤10	1330-20-7
Epoxy resin (MW ≤ 700)	≥0.10 - ≤2.8	25068-38-6
2,2-bis(acryloyloxymethyl)butyl acrylate	≥1.0 - ≤5.0	15625-89-5
ethylbenzene	≥0.10 - ≤2.9	100-41-4

SUB codes represent substances without registered CAS Numbers.

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 current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Safety Data Sheet information available. Never give anything by mouth to an unconscious or convulsing person.

Description of necessary first aid measures

Eye contact : Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.
In case of accidental eye contact, avoid direct exposure to the sun or other sources of UV light as severe irritation including burns may result. These reactions can be delayed – get medical attention if pain, irritation or blistering occurs after contact.

Inhalation : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.

Skin contact : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.
In case of accidental skin contact, avoid direct exposure to the sun or other sources of UV light as severe irritation including burns may result. These reactions can be delayed – get medical attention if pain, irritation, rash or blistering occurs after contact.

Ingestion : If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : May cause respiratory irritation.

Skin contact : Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction.

Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Section 4. First aid measures

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing

Skin contact : Adverse symptoms may include the following:
irritation
redness
dryness
cracking

Ingestion : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use dry chemical, CO_2, water spray (fog) or foam.

Unsuitable extinguishing media : Do not use water jet.

Specific hazards arising from the chemical : Highly flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon oxides
halogenated compounds
carbonyl halides

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Section 5. Fire-fighting measures

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : 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 non-emergency personnel".

Environmental 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).

Methods and materials for containment and cleaning up

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 breathe vapor or mist. Do not ingest. 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.

Section 7. Handling and storage

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.

Advice on general 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.

Conditions for safe storage, including any incompatibilities : Do not store above the following temperature: 50°C (122°F). 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 controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
4-chloro-α,α,α-trifluorotoluene	**IPEL (PPG).** TWA: 25 ppm
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin	None.
xylene	**ACGIH TLV (United States, 3/2018).** STEL: 651 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes. TWA: 434 mg/m³ 8 hours. TWA: 100 ppm 8 hours. **OSHA PEL (United States, 5/2018).** TWA: 435 mg/m³ 8 hours. TWA: 100 ppm 8 hours.
Epoxy resin (MW ≤ 700)	None.
2,2-bis(acryloyloxymethyl)butyl acrylate	None.
ethylbenzene	**ACGIH TLV (United States, 3/2018).** TWA: 20 ppm 8 hours. **OSHA PEL (United States, 5/2018).** TWA: 435 mg/m³ 8 hours. TWA: 100 ppm 8 hours.

Key to abbreviations

A = Acceptable Maximum Peak
ACGIH = American Conference of Governmental Industrial Hygienists.
C = Ceiling Limit
F = Fume
IPEL = Internal Permissible Exposure Limit
OSHA = Occupational Safety and Health Administration.
S = Potential skin absorption
SR = Respiratory sensitization
SS = Skin sensitization
TD = Total dust
TLV = Threshold Limit Value
TWA = Time Weighted Average

Section 8. Exposure controls/personal protection

Z = OSHA 29 CFR 1910.1200 Subpart Z - Toxic and Hazardous Substances

Consult local authorities for acceptable exposure limits.

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 engineering 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.

Environmental 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.

Individual protection 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. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Chemical splash goggles.

Skin protection

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.

Gloves : polyethylene butyl rubber

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 anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

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.

Section 9. Physical and chemical properties

Appearance

Physical state	:	Liquid.
Color	:	Not available.
Odor	:	Not available.
Odor threshold	:	Not available.
pH	:	Not available.
Melting point	:	Not available.
Boiling point	:	>37.78°C (>100°F)
Flash point	:	Closed cup: -4.44°C (24°F)
Auto-ignition temperature	:	Not available.
Decomposition temperature	:	Not available.
Flammability (solid, gas)	:	Not available.
Lower and upper explosive (flammable) limits	:	Not available.
Evaporation rate	:	Not available.
Vapor pressure	:	Not available.
Vapor density	:	Not available.
Relative density	:	1.2
Density (lbs / gal)	:	10.01
Solubility	:	Insoluble in the following materials: cold water.
Partition coefficient: n-octanol/water	:	Not available.
Viscosity	:	Kinematic (40°C (104°F)): >0.21 cm^2/s (>21 cSt)
VOC	:	258 g/l
% Solid. (w/w)	:	34.81

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : When exposed to high temperatures may produce hazardous decomposition products. Refer to protective measures listed in sections 7 and 8.

Incompatible materials : Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids.

Hazardous decomposition products : Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
4-chloro-α,α,α-trifluorotoluene	LC50 Inhalation Vapor	Rat	33080 mg/m³	4 hours
	LD50 Dermal	Rabbit	>2.7 g/kg	-
	LD50 Oral	Rat	13 g/kg	-
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin	LD50 Dermal	Rabbit	>2 g/kg	-
	LD50 Oral	Rat	11.4 g/kg	-
xylene	LD50 Dermal	Rabbit	>1.7 g/kg	-
	LD50 Oral	Rat	4.3 g/kg	-
Epoxy resin (MW ≤ 700)	LD50 Dermal	Rabbit	>2 g/kg	-
	LD50 Oral	Rat	>2 g/kg	-
2,2-bis(acryloyloxymethyl) butyl acrylate	LD50 Dermal	Rabbit	5170 mg/kg	-
	LD50 Oral	Rat	5.19 g/kg	-
ethylbenzene	LC50 Inhalation Vapor	Rat	17.8 mg/l	4 hours
	LD50 Dermal	Rabbit	17.8 g/kg	-
	LD50 Oral	Rat	3.5 g/kg	-

Conclusion/Summary : There are no data available on the mixture itself.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin	Skin - Moderate irritant	Rabbit	-	-	-
	Eyes - Moderate irritant	Rabbit	-	-	-
xylene	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-
Epoxy resin (MW ≤ 700)	Skin - Mild irritant	Rabbit	-	-	-
	Eyes - Mild irritant	Rabbit	-	-	-
2,2-bis(acryloyloxymethyl) butyl acrylate	Skin - Irritant	Rabbit	-	-	-

Conclusion/Summary

Skin : There are no data available on the mixture itself.

Eyes : There are no data available on the mixture itself.

Respiratory : There are no data available on the mixture itself.

Sensitization

Product/ingredient name	Route of exposure	Species	Result
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin	skin	Mouse	Sensitizing
Epoxy resin (MW ≤ 700)	skin	Mouse	Sensitizing
2,2-bis(acryloyloxymethyl) butyl acrylate	skin	Rabbit	Sensitizing

Conclusion/Summary

Skin : There are no data available on the mixture itself.

Respiratory : There are no data available on the mixture itself.

Section 11. Toxicological information

Mutagenicity

Conclusion/Summary : There are no data available on the mixture itself.

Carcinogenicity

Conclusion/Summary : There are no data available on the mixture itself.

Classification

Product/ingredient name	OSHA	IARC	NTP
xylene	-	3	-
2,2-bis(acryloyloxymethyl) butyl acrylate	-	2B	-
ethylbenzene	-	2B	-

Carcinogen Classification code:

IARC: 1, 2A, 2B, 3, 4
NTP: Known to be a human carcinogen; Reasonably anticipated to be a human carcinogen
OSHA: +
Not listed/not regulated: -

Reproductive toxicity

Conclusion/Summary : There are no data available on the mixture itself.

Teratogenicity

Conclusion/Summary : There are no data available on the mixture itself.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
4-chloro-α,α,α-trifluorotoluene	Category 3	Not applicable.	Respiratory tract irritation
xylene	Category 3	Not applicable.	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
ethylbenzene	Category 2	Not determined	hearing organs

Target organs : Contains material which causes damage to the following organs: brain, central nervous system (CNS).
Contains material which may cause damage to the following organs: kidneys, lungs, the nervous system, liver, upper respiratory tract, skin, ears, eye, lens or cornea.

Aspiration hazard

Name	Result
xylene	ASPIRATION HAZARD - Category 1
ethylbenzene	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure

Potential acute health effects

Eye contact : Causes serious eye irritation.

Section 11. Toxicological information

Inhalation : May cause respiratory irritation.

Skin contact : Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction.

Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing

Skin contact : Adverse symptoms may include the following:
irritation
redness
dryness
cracking

Ingestion : No specific data.

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

Conclusion/Summary : There are no data available on the mixture itself. Acrylate components of the mixture have irritating properties. Prolonged or repeated contact with skin or mucous membrane may result in irritation symptoms, such as redness, blistering, dermatitis etc. May cause allergic skin reactions with repeated exposure. The inhalation of airborne droplets or aerosols may cause irritation of the respiratory tract. Ingestion may cause nausea, weakness and central nervous system effects. Exposure to component solvent vapor concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. Solvents may cause some of the above effects by absorption through the skin. There is some evidence that repeated exposure to organic solvent vapors in combination with constant loud noise can cause greater hearing loss than expected from exposure to noise alone. If splashed in the eyes, the liquid may cause irritation and reversible damage. This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Short term exposure

Potential immediate effects : There are no data available on the mixture itself.

Potential delayed effects : There are no data available on the mixture itself.

Long term exposure

Potential immediate effects : There are no data available on the mixture itself.

Potential delayed effects : There are no data available on the mixture itself.

Potential chronic health effects

General : May cause damage to organs through prolonged or repeated exposure. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

Section 11. Toxicological information

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
CA 7233B ACTIVATOR COMPONENT	28281.4	2364	N/A	72.3	9.3
4-chloro-α,α,α-trifluorotoluene	13000	2500	N/A	33.08	N/A
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin	11400	2500	N/A	N/A	N/A
xylene	4300	1100	N/A	11	1.5
Epoxy resin (MW ≤ 700)	2500	2500	N/A	N/A	N/A
2,2-bis(acryloyloxymethyl)butyl acrylate	5190	5170	N/A	N/A	N/A
ethylbenzene	3500	17800	N/A	17.8	1.5

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin	Chronic NOEC 0.3 mg/l	Daphnia	21 days
Epoxy resin (MW ≤ 700)	Acute LC50 1.8 mg/l	Daphnia	48 hours
	Chronic NOEC 0.3 mg/l	Daphnia	21 days
2,2-bis(acryloyloxymethyl) butyl acrylate	Acute LC50 0.87 mg/l	Fish	96 hours
ethylbenzene	Acute LC50 150 to 200 mg/l Fresh water	Fish	96 hours

Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin	OECD 301F	5 % - 28 days	-	-
Epoxy resin (MW ≤ 700)	OECD 301F	5 % - 28 days	-	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin	-	-	Not readily
xylene	-	-	Readily
Epoxy resin (MW ≤ 700)	-	-	Not readily
ethylbenzene	-	-	Readily

Bioaccumulative potential

Section 12. Ecological information

Product/ingredient name	$LogP_{ow}$	BCF	Potential
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin	3	31	low
xylene	3.16	7.4 to 18.5	low
Epoxy resin (MW ≤ 700)	3	31	low
ethylbenzene	3.15	79.43	low

Mobility in soil

Soil/water partition coefficient (K_{OC}) : Not available.

Section 13. Disposal considerations

Disposal methods : 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.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees. Section 6. Accidental release measures

14. Transport information

	DOT	IMDG	IATA
UN number	UN1263	UN1263	UN1263
UN proper shipping name	PAINT	PAINT	PAINT
Transport hazard class (es)	3	3	3
Packing group	II	II	II
Environmental hazards	No.	Yes.	Yes. The environmentally hazardous substance mark is not required.
Marine pollutant substances	Not applicable.	(reaction product: bisphenol-A-(epichlorhydrin); epoxy resin , Epoxy resin (MW ≤ 700))	Not applicable.

14. Transport information

Product RQ (lbs)	1102.6	Not applicable.	Not applicable.
RQ substances	(xylene)	Not applicable.	Not applicable.

Additional information

DOT : Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.

IMDG : The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.

IATA : The environmentally hazardous substance mark may appear if required by other transportation regulations.

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Section 15. Regulatory information

United States

United States inventory (TSCA 8b) : All components are listed or exempted.

United States - TSCA 12(b) - Chemical export notification:

4-chloro-α,α,α-trifluorotoluene — One time notification

SARA 302/304

SARA 304 RQ : Not applicable.

Composition/information on ingredients

No products were found.

SARA 311/312

Classification : FLAMMABLE LIQUIDS - Category 2
SKIN IRRITATION - Category 2
EYE IRRITATION - Category 2A
SKIN SENSITIZATION - Category 1
CARCINOGENICITY - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (hearing organs) - Category 2
HNOC - Defatting irritant

Composition/information on ingredients

Name	%	Classification
4-chloro-α,α,α-trifluorotoluene	≥50 - ≤63	FLAMMABLE LIQUIDS - Category 3 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 HNOC - Defatting irritant
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin	≥20 - ≤34	SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A

Section 15. Regulatory information

xylene	≥5.0 - ≤10	SKIN SENSITIZATION - Category 1B FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 ASPIRATION HAZARD - Category 1
Epoxy resin (MW ≤ 700)	≥0.10 - ≤2.8	SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SKIN SENSITIZATION - Category 1B
2,2-bis(acryloyloxymethyl)butyl acrylate	≥1.0 - ≤5.0	SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SKIN SENSITIZATION - Category 1B CARCINOGENICITY - Category 2
ethylbenzene	≥0.10 - ≤2.9	FLAMMABLE LIQUIDS - Category 2 ACUTE TOXICITY (inhalation) - Category 4 CARCINOGENICITY - Category 2 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (hearing organs) - Category 2 ASPIRATION HAZARD - Category 1 HNOC - Defatting irritant

SARA 313

Supplier notification :

Chemical name	CAS number	Concentration
xylene	1330-20-7	5 - 10
ethylbenzene	100-41-4	1 - 5

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

California Prop. 65

⚠ **WARNING**: Cancer - www.P65Warnings.ca.gov.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health : 2 * **Flammability** : 3 **Physical hazards** : 0

(*) - Chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on MSDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

National Fire Protection Association (U.S.A.)

Health : 2 **Flammability** : 3 **Instability** : 0

Date of previous issue : **8/10/2019**

Organization that prepared the MSDS : EHS

Section 16. Other information

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available
SGG = Segregation Group
UN = United Nations

Indicates information that has changed from previously issued version.

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