SECTION 1: Identification

1.1 GHS Product identifier

Product name 84003-25
EURO 221 URETHANE CLEARCOAT NATIONAL RULE - ACTIVATOR SLOW

Product number
Brand

1.2 Other means of identification

Hexamethylene Diiscocyanate Poly Isocyanate

1.3 Recommended use of the chemical and restrictions on use

For Professional Use Only.

1.4 Supplier's details

Name EXCEL PRODUCTS
Address PO BOX 24631
WEST PALM BEACH, FLORIDA
33416 - USA

Telephone T 800-957-0848
Fax
email info@excelproducts.com

1.5 Emergency phone number

Chemtrec: 800-424-9300 CCN644298

SECTION 2: Hazard identification

General hazard statement

May cause allergy or asthma symptoms or breathing difficulties if inhaled
Harmful if inhaled.
May cause an allergic skin reaction.
Hazard statement(s): Highly flammable liquid and vapour. Suspected of causing cancer. May damage fertility or the unborn child. May cause damage to organs (kidneys) through prolonged or repeated exposure. May cause an allergic skin reaction. Causes serious eye irritation. May cause drowsiness or dizziness. Hexaamethylene Diisocyanate Polymer reacts slowly with water to form urea. Keep product away from high moisture and/or sources of water.
Highly flammable liquid and vapour. May be fatal if swallowed and enters airways. Suspected of damaging fertility or the unborn child. May cause damage to organs (Liver, kidneys and Lungs) through prolonged or repeated exposure. Causes skin irritation. Causes serious eye irritation.

2.1 Classification of the substance or mixture

GHS classification in accordance with: OSHA (29 CFR 1910.1200)

- Acute toxicity, inhalation, Cat. 4
- Eye damage/irritation, Cat. 2A
- Flammable liquids, Cat. 1
- Toxic to reproduction, Cat. 1B
- Sensitization, respiratory, Cat. 1
- Skin corrosion/irritation, Cat. 2
- Sensitization, skin, Cat. 1
- Specific target organ toxicity (repeated exposure), Cat. 2

2.2 GHS label elements, including precautionary statements

Pictogram

Signal word **Danger**

Hazard statement(s)

H224	Extremely flammable liquid and vapor
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H332	Harmful if inhaled
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness
H360	May damage fertility or the unborn child
H373	May cause damage to organs through prolonged or repeated exposure

Precautionary statement(s)

P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P233	Keep container tightly closed.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P264	Wash skin thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing must not be allowed out of the workplace.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P284	[In case of inadequate ventilation] wear respiratory protection.
P302+P352	IF ON SKIN: Wash with plenty of water and soap
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P321	Specific treatment (see advice on this label).
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P342+P311	If experiencing respiratory symptoms: Call a POISON CENTER/doctor

P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.
P370+P378	In case of fire: Use Foam. Dry chemical powder. BCF (where regulations permit). Carbon dioxide to extinguish.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local, state, and federal regulations.

2.3 Other hazards which do not result in classification

Precautionary statement(s)
Use only outdoors or in a well-ventilated area.
Wear protective gloves/protective clothing/eye protection/face protection.
[In case of inadequate ventilation] wear respiratory protection.
Avoid breathing mist/vapours/spray.
Contaminated work clothing should not be allowed out of the workplace.
Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat,hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. For large container, ground and bond
container and receiving equipment. Use explosion-proof electrical, ventilating and lightning equipment. Use non-sparking tools. Take action to prevent
static discharges. Do not breathe mist, vapors and spray. Use only outdoors or in a well-ventilated area. Wear protective gloves, protective clothing,
eye and face protection. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Keep product away from high moisture environments or water source.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous components

Component	Concentration
HMDI POLYMER (CAS no.: 28182-81-2; EC no.: 931-274-8)	**> 45 - < 55 % (weight)**
CLASSIFICATIONS: Sensitization, respiratory, Cat. 1; Sensitization, skin, Cat. 1; Specific target organ toxicity (single exposure), Cat. 3; Acute toxicity, inhalation, Cat. 3. HAZARDS: H317 - May cause an allergic skin reaction; H332 - Harmful if inhaled; H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.	
N-Butyl acetate (CAS no.: 123-86-4; EC no.: 204-658-1; Index no.: 607-025-00-1)	**> 20 - < 30 % (weight)**
CLASSIFICATIONS: Flammable liquids, Cat. 3; Specific target organ toxicity (single exposure), Cat. 3. HAZARDS: H226 - Flammable liquid and vapor; H335 - May cause respiratory irritation; H336 - May cause drowsiness or dizziness.	
2-methoxy-1-methylethyl acetate (CAS no.: 108-65-6; EC no.: 203-603-9; Index no.: 607-195-00-7)	**20 - 30 % (weight)**
CLASSIFICATIONS: Flammable liquids, Cat. 3; Toxic to reproduction, Cat. 1B. HAZARDS: H226 - Flammable liquid and vapor; H360 - May damage fertility or the unborn child [effect, route].	

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

General advice	In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).
If inhaled	Inhalation of vapours or aerosols (mists, fumes), generated by the material during the course of normal handling, may be harmful. The material is not thought to produce respiratory irritation (as classified by EC Directives using animal models). Nevertheless inhalation of

vapours, fumes or aerosols, especially for prolonged periods, may produce respiratory discomfort and occasionally, distress.

In case of skin contact	Limited evidence exists, or practical experience predicts, that the material either produces inflammation of the skin in a substantial number of individuals following direct contact, and/or produces significant inflammation when applied to the healthy intact skin of animals, for up to four hours, such inflammation being present twenty-four hours or more after the end of the exposure period. Skin irritation may also be present after prolonged or repeated exposure; this may result in a form of contact dermatitis (nonallergic). The dermatitis is often characterized by skin redness (erythema) and swelling (oedema) which may progress to blistering (vesiculation), scaling and thickening of the epidermis. At the microscopic level there may be intercellular oedema of the spongy layer of the skin (spongiosis) and intracellular oedema of the epidermis. Open cuts, abraded or irritated skin should not be exposed to this material Entry into the blood-stream through, for example, cuts, abrasions, puncture wounds or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.
In case of eye contact	Although the liquid is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may produce transient discomfort characterised by tearing or conjunctival redness (as with windburn).
If swallowed	Immediately give a glass of water. First aid is not generally required. If in doubt, contact a Poisons Information Center or a doctor. The material is not thought to produce adverse health effects following ingestion (as classified by EC Directives using animal models). Nevertheless, adverse systemic effects have been produced following exposure of animals by at least one other route and good hygiene practice requires that exposure be kept to a minimum.

Personal protective equipment for first-aid responders

Obtain exposure TWA time to understand saturation of vapors potentially inhaled.

4.2 Most important symptoms/effects, acute and delayed

Effects: (acute or delayed): Inhalation of high concentrations vapors can cause narcotic effect. May cause irritation of eyes and respiratory tract. May cause skin irritation. Following repeated or prolonged contact, it has a degreasing effect on the skin. In high concentration, can cause depression of the central nervous system. May cause kidney damage.

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

No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

SECTION 5: Fire-fighting measures

5.1 Suitable extinguishing media

Foam.
Dry chemical powder.
BCF (where regulations permit).
Carbon dioxide.
Water spray or fog - Large fires only.Use water spray

5.2 Specific hazards arising from the chemical

Hexamethylene Diisocyante Unstable in the presence of incompatible materials.Carbon oxides
Nitrogen oxides (NOx)
Combustible.
Fire may cause evolution of:
Hydrogen cyanide (hydrocyanic acid), nitrogen oxides
Caution! in contact with water product releases:
carbon dioxide
Risk of explosion.
Vapors are heavier than air and may spread along floors.
Forms explosive mixtures with air on intense heating.
Development of hazardous combustion gases or vapours possible in the event of fire.
Product is considered stable.
Hazardous polymerisation will not occur. Avoid high moisture

N-Butyl acetate: Avoid contamination with oxidising agents.

HEXAMETHYLENE DIISOCYANATE POLYMER : Combustible.
Slight fire hazard when exposed to heat or flame.
Heating may cause expansion or decomposition leading to violent rupture of containers.
On combustion, may emit irritating/ toxic fumes.
May emit acrid smoke.
Mists containing combustible materials may be explosive.
May emit poisonous fumes.
May emit corrosive fumes.

N-Butyl acetate: Do not allow run-off from fire fighting to enter drains or water courses.

2-methoxy-1-methylethyl acetate: Carbon Oxides. Do not allow run-off from fire fighting to enter drains or water courses.

5.3 Special protective actions for fire-fighters

Alert Fire Brigade and tell them location and nature of hazard.
Wear full body protective clothing with breathing apparatus.
Prevent, by any means available, spillage from entering drains or water course.
Use water delivered as a fine spray to control fire and cool adjacent area.
Avoid spraying water onto liquid pools.
DO NOT approach containers suspected to be hot.
Cool fire exposed containers with water spray from a protected location.
If safe to do so, remove containers from path of fire.
Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Use personal protection recommended in Section 8.
As an immediate precautionary measure, isolate spill or leak area in all directions. Keep unauthorized personnel away. Stay upwind. Keep out of low areas. Ventilate enclosed areas.

6.2 Environmental precautions

Keep out of drains, sewers, ditches, and waterways.

6.3 Methods and materials for containment and cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid all personal contact, including inhalation.
Wear protective clothing when risk of exposure occurs.
Use in a well-ventilated area.
Prevent concentration in hollows and sumps.
DO NOT enter confined spaces until atmosphere has been checked.
Avoid smoking, naked lights or ignition sources.
Avoid contact with incompatible materials.
When handling, DO NOT eat, drink or smoke.
Keep containers securely sealed when not in use.
Avoid physical damage to containers.
Always wash hands with soap and water after handling.
Work clothes should be laundered separately.
Use good occupational work practice.
Observe manufacturer's storage and handling recommendations contained within this SDS.
Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions.
DO NOT allow clothing wet with material to stay in contact with skin
Avoid contact with skin, eyes and clothing.
Avoid breathing vapors, spray mists or sanding dust.
In case of insufficient ventilation, wear suitable respiratory equipment.

7.2 Conditions for safe storage, including any incompatibilities

Keep workplace dry. Do not allow product to come into contact with water. Store below 120F to aviod building vapor pressure in container. Keep container tightly closed. Keep out of the reach of children.

Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

1. 2-methoxy-1-methylethyl acetate (CAS: 108-65-6 EC: 203-603-9)
PEL-TWA, (exposed opulation type,
blank for non-DNEL) (Inhalation): , 50 ppm, (US WEEL)
(e.g., "OSHA Annotated Table Z-1, www.osha.gov")

2. HMDI POLYMER (CAS: 28182-81-2)
REL-TWA (Inhalation): 0.005 ppm; USA (NIOSH)
8 hrs ACGIH TLVs and BEI Book, 2016

STEL (Inhalation): 0.020 ppm,; USA (NIOSH)
ACGIH TLVs and BEI Book, 2016

TWA (Inhalation): 0.005 ppm; USA (ACGIH)
8 hrs ACGIH TLVs and BEI Book, 2016

3. N-Butyl acetate (CAS: 123-86-4 EC: 204-658-1)
PEL (Inhalation): 710 mg/m3 (OSHA)
OSHA Annotated Table Z-1, www.osha.gov

REL (Inhalation): 150 ppm, (ST) 200 ppm (NIOSH)
OSHA Annotated Table Z-1, www.osha.gov

REL (Inhalation): 150 ppm (ST) 200 ppm (NIOSH)
NIOSH REL

STEL (Inhalation): 200 ppm, 950 mg/m3 (Cal/OSHA)
California permissible exposure limits for chemical contaminants
(Title 8, Article 107)

TLV® (Inhalation): 150 ppm, (ST) 200 ppm; USA (ACGIH)
OSHA Annotated Table Z-1, www.osha.gov

TLV® (Inhalation): 150 ppm (ST) 200 ppm; USA (ACGIH)
ACGIH

TWA (Inhalation): 150 ppm, 710 mg/m3 (OSHA)
OSHA Annotated Table Z-1, www.osha.gov

8.2 Appropriate engineering controls
Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

8.3 Individual protection measures, such as personal protective equipment (PPE)

Pictograms

Eye/face protection
Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body protection
Wear protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

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

Thermal hazards
No data available

Environmental exposure controls
Do not let product enter drains. Emissions from ventilation or work process equipment should be checked to ensure they comply with 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.

SECTION 9: Physical and chemical properties and safety characteristics

Physical state	Liquid
Appearance	Clear liquid
Color	Clear, water white
Odor	Moderate Organic Solvent
Odor threshold	No data available
pH	No data available
Melting point/freezing point	55.44C (130F)
Boiling point or initial boiling point and boiling range	>250F
Flash point	18C/47F
Evaporation rate	>1(ether = 1)
Flammability	High
Lower and upper explosion limit/flammability limit	Upper limit: 7.76% at 25C; Lower limit: 14.7% at 25C
Vapor pressure	15.2 kpa at 55C
Relative vapor density	No data available
Density and/or relative density	1.0174
Solubility	Inmiscible
Partition coefficient n-octanol/water (log value)	No data available
Auto-ignition temperature	>400F
Decomposition temperature	>500F
Kinematic viscosity	No data available
Explosive properties	No data available
Oxidizing properties	No data available

Particle characteristics
No data available.

Supplemental information regarding physical hazard classes
No data available.

Further safety characteristics (supplemental)
Vol % Solids: 48.59
Wt % Volatirles: 51.01

VOC ACTUAL (g/L):	521.79
VOC REGULATORY (g/L)	521.79
VOC ACTUAL (LB/GL)	4.35
VOC REGULATORY (LB/GL)	4.35

SECTION 10: Stability and reactivity

10.1 Reactivity
None under normal use conditions.

10.2 Chemical stability
Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions
Can decompose violently in contact with:
Water
Release of:
Carbon dioxide (CO_2)
Risk of explosion with:

Alcohols with Bases
Exothermic reaction with:
Alcohols, Amides, Amines, Oxidizing agents,, Strong acids and strong bases, Mercaptans, Phenols

10.4 Conditions to avoid
Contact with water and incompatible materials. Sources of ignition. Exposure to heat.

10.5 Incompatible materials

HEXAMETHYLENE DIISOCYANATE POLYMER : See section 7

N-Butyl acetate:
Strong acids, Strong bases, Strong oxidizing agents, Strong reducing agents

---
2-methoxy-1-methylethyl acetate:
Strong acids, Strong oxidizing agents

HMDI POLYMER : Water, Amines, Strong bases, Alcohols, Copper alloys

10.6 Hazardous decomposition products

N-Butyl acetate: Carbon oxides

HEXAMETHYLENE DIISOCYANATE POLYMER : See section 5

2-methoxy-1-methylethyl acetate:
Carbon oxides, Sulfur oxides

HMDI POLYMER : By Fire and High Heat: Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), dense black smoke., Hydrogen cyanide, Isocyanate, Isocyanic Acid, Other undetermined compounds

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity
Likely Routes of Exposure: Eye contact. Skin contact. Inhalation. Ingestion

Symptoms (including delayed and immediate effects):
Inhalation: May cause respiratory irritation. Signs/symptoms may include cough, sneezing,nasal discharge, headache, hoarseness, and nose and throat pain.
Ingestion: May cause gastrointestinal irritation. Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

Acute toxicity

LD50 Oral - Rat - male - 746 mg/kg	(OECD Test Guideline 401)
LC50 Inhalation - Rat - male and female - 4 h - 0.124 mg/l - vapor	(OECD Test Guideline 403)
LD50 Dermal - Rat - male and female - > 7,000 mg/kg	(OECD Test Guideline 402)

No data available
Skin corrosion/irritation

HEXAMETHYLENE DIISOCYANATE POLYMER : Product: No date available

hexamethylene diisocyanate polymer

TOXICITY	IRRITATION
Dermal (rabbit) LD50: >5000 mg/kg	Skin (rabbit): 500 mg - moderate
Inhalation (rat) LC50: 18500 mg/m3/1h	
Inhalation (rat) LC50: 390000 mg/m3/4h	
Oral (rat) LD50: >10000 mg/kg	

2-methoxy-1-methylethyl acetate:
Not classified based on available information.
Components:
2-methoxy-1-methylethyl acetate:
Acute oral toxicity: LD50 Oral (Rat): 6,190 mg/kg
Acute inhalation toxicity : LC50 (Rat): > 4345 ppm Exposure time: 6 h
Acute dermal toxicity : LD50 Dermal (Rabbit): > 5,000 mg/kg
2-methoxypropanol:
Acute oral toxicity: LD50 Oral (Rat): 5,710 mg/kg
Acute dermal toxicity : LD50 Dermal (Rabbit): 5,660 mg/kg

HMDI POLYMER : Product:
No date available
hexamethylene diisocyanate polymer

TOXICITY	IRRITATION
Dermal (rabbit) LD50: >5000 mg/kg	Skin (rabbit): 500 mg - moderate
Inhalation (rat) LC50: 18500 mg/m3/1h	
Inhalation (rat) LC50: 390000 mg/m3/4h	
Oral (rat) LD50: >10000 mg/kg	

Skin corrosion/irritation
May cause skin irritation. Signs/symptoms may include localized redness, swelling, and itching.
Skin corrosion/irritation
Skin - Rabbit
Result: Corrosive after 1 to 4 hours of exposure - 4 h (OECD Test Guideline 404)
Serious eye damage/eye irritation
Eyes - Rabbit
Result: Causes serious eye damage. (OECD Test Guideline 405)

HEXAMETHYLENE DIISOCYANATE POLYMER : hexamethylene diisocyanate

TOXICITY	IRRITATION
Dermal (rabbit) LD50: 593 mg/kg	Eye: adverse effect observed (irritating)
Inhalation (mouse) LC50: 30 mg/m3	Skin: adverse effect observed (corrosive)
Inhalation (rat) LC50: 60 mg/m3/4h	Skin: adverse effect observed (irritating)
Intravenous (Mouse) LD50: 5.6 mg/kg]	
Oral (mouse) LD50: 350 mg/kg	
Oral (rat) LD50: 738 mg/kg	

METHYL ACETATE:
Skin - Rabbit Result: No skin irritation - 4 h (OECD Test Guideline 404)

2-methoxy-1-methylethyl acetate: Not classified based on available information.
Components:
2-methoxy-1-methylethyl acetate:

Species : Rabbit Exposure time : 4 h Result : none
Species : Rabbit Exposure time : 24 h Result : none
2-methoxypropanol:
Species : Rabbit Result : slight

Serious eye damage/irritation
Eyes - Rabbit Result: Causes serious eye damage. (OECD Test Guideline 405)

HEXAMETHYLENE DIISOCYANATE POLYMER : hexamethylene diisocyanate polymer
The material may produce moderate eye irritation leading to inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.
The material may cause skin irritation after prolonged or repeated exposure and may produce a contact dermatitis (nonallergic). This form of dermatitis is often characterised by skin redness (erythema) and swelling the epidermis. Histologically there may be intercellular oedema of the spongy layer (spongiosis) and intracellular oedema of the epidermis.

METHYL ACETATE:
Eyes - Rabbit Result: Irritating to eyes. (OECD Test Guideline 405)
Remarks: (Regulation (EC) No 1272/2008, Annex VI)

2-methoxy-1-methylethyl acetate: Not classified based on available information.
Components:
2-methoxy-1-methylethyl acetate:
Species : Rabbit Result : very sligh

HMDI POLYMER : hexamethylene diisocyanate polymer
The material may produce moderate eye irritation leading to inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.
The material may cause skin irritation after prolonged or repeated exposure and may produce a contact dermatitis (nonallergic). This form of dermatitis is often characterized by skin redness (erythema) and swelling the epidermis. Histologically there may be intracellular o edema of the spongy layer (spongiosis) and intracellular o edema of the epidermis.

Respiratory or skin sensitization
Maximization Test - Guinea pig
Result: positive
(OECD Test Guideline 406)
Sensitisation test: - Guinea pig
Result: positive

HEXAMETHYLENE DIISOCYANATE POLYMER : hexamethylene diisocyanate
Asthma-like symptoms may continue for months or even years after exposure to the material ceases. This may be due to a non-allergenic condition known as reactive airways dysfunction syndrome (RADS) which can occur following exposure to high levels of highly irritating compound. Key criteria for the diagnosis of RADS include the absence of preceding respiratory disease, in a non-atopic individual, with abrupt onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. A reversible airflow pattern, on spirometry, with the presence of moderate to severe bronchial hyperreactivity on methacholine challenge testing and the lack of minimal lymphocytic inflammation, without eosinophilia, have also been included in the criteria for diagnosis of RADS. RADS (or asthma) following an irritating inhalation is an infrequent disorder with rates related to the concentration of and duration of exposure to the irritating substance. Industrial bronchitis, on the other hand, is a disorder that occurs as result of exposure due to high concentrations of irritating substance (often particulate in

nature) and is completely reversible after exposure ceases. The disorder is characterized by dyspnea, cough and mucus production.
for 1,6-hexamethylene diisocyanate:
Exposures to HDI are often associated with exposures to its prepolymers, especially to a trimeric biuretic prepolymer of HDI (HDI-BT), which is widely used as a hardener in automobile and airplane paints, and which typically contains 0.5-1% unreacted HDI. There is evidence that diisocyanate prepolymers may induce asthma at the same or greater frequency as the monomers; therefore, there is a need to assess the potential for human exposure to prepolymeric HDI as well as monomeric HDI.
1,6-Hexamethylene diisocyanate is corrosive to the skin and the eye.
1,6-Hexamethylene diisocyanate was found to induce dermal and respiratory sensitization in animals and humans. There is no threshold known for this effect.
Inhalation studies with repeated exposures to 1,6-hexamethylene diisocyanate vapor show that the respiratory tract is the target with 1,6-hexamethylene diisocyanate showing primarily upper respiratory tract lesions (nasal cavity).
1,6-Hexamethylene diisocyanate did not show a neurotoxic effect in a combined reproduction/developmental/neurotoxicity study. Life-time inhalation exposure to rats revealed a progression of non-neoplastic respiratory tract lesions, primarily to the nasal cavity, and represented the sequelae of non-specific irritation. Based on the presence of only reversible tissue responses to irritation at the low concentration of 0.005 ppm, this concentration was a NOAEL. No carcinogenic potential in rats was observed after life-time inhalation.
1,6-Hexamethylene diisocyanate showed no mutagenic activity in vitro in bacterial and in mammalian cell test systems. 1,6-Hexamethylene diisocyanate showed no clastogenic activity in vivo. 1,6-Hexamethylene diisocyanate has no effect on fertility and post-natal viability through post-natal day 4 in the rat after inhalation up to 0.299 ppm. The overall NOEL was 0.005 ppm. Inhalation of 1,6-hexamethylene diisocyanate during the pregnancy of rats produced maternal effects (nasal turbinate histopathology) at concentrations ³ 0.052 ppm. No developmental toxicity was observed up to 0.308 ppm.
for diisocyanates:
In general, there appears to be little or no difference between aromatic and aliphatic diisocyanates as toxicants. In addition, there are insufficient data available to make any major distinctions between polymeric (<1000 MW) and monomeric diisocyanates. Based on repeated dose studies in animals by the inhalation route, both aromatic and aliphatic diisocyanates appear to be of high concern for pulmonary toxicity at low exposure levels. Based upon a very limited data set, it appears that diisocyanate prepolymers exhibit the same respiratory tract effects as the monomers in repeated dose studies. There is also evidence that both aromatic and aliphatic diisocyanates are acutely toxic via the inhalation route. Most members of the diisocyanate category have not been tested for carcinogenic potential. Though the aromatic diisocyanates tested positive and the one aliphatic diisocyanate tested negative in one species, it is premature to make any generalizations about the carcinogenic potential of aromatic versus aliphatic diisocyanates. In the absence of more human data, it would be prudent at this time to assume that both aromatic and aliphatic diisocyanates are respiratory sensitisers. Diisocyanates are moderate to strong dermal sensitisers in animal studies. Skin irritation studies performed on rabbits and guinea pigs indicate no difference in the effects of aromatic versus aliphatic diisocyanates.
For monomers, effects on the respiratory tract (lungs and nasal cavities) were observed in animal studies at exposure concentrations of less than 0.005 mg/L. The experimental animal data available on prepolymeric diisocyanates show similar adverse effects at levels that range from 0.002 mg/L to 0.026 mg/L. There is also evidence that both aromatic and aliphatic diisocyanates are acutely toxic via the inhalation route
Respiratory and Dermal Sensitization: Based on the available toxicity data in animals and epidemiologic studies of humans, aromatic diisocyanates such as TDI and MDI are strong respiratory sensitisers. Aliphatic diisocyanates are generally not active in animal models for respiratory sensitization. However, HDI and possibly isophorone diisocyanate (IPDI), are reported to be associated with respiratory sensitization in humans. Symptoms resulting from occupational exposure to HDI include shortness of breath, increased bronchoconstriction reaction to histamine challenges, asthmatic reactions, wheezing and coughing. Two case reports of human exposure to IPDI by inhalation suggest IPDI is a respiratory sensitiser in humans. In view of the information from case reports in humans, it would be prudent at this time to assume that both aromatic and aliphatic diisocyanates are respiratory sensitisers. Studies in both human and mice using TDI, HDI, MDI and dicyclohexylmethane4,4'-diisocyanate (HMDI) suggest cross-reactivity with the other diisocyanates, irrespective of whether the challenge compound was an aliphatic or aromatic diisocyanate. Diisocyanates are moderate to strong dermal sensitisers in animal studies. There seems to be little or no difference in the level of reactivity between aromatic and aliphatic diisocyanates.
Dermal Irritation: Skin irritation studies performed on rabbits and guinea pigs indicate no difference in the effects of aromatic versus aliphatic diisocyanates. The level of irritation ranged from slightly to severely irritating to the skin.

One chemical, hydrogenated MDI (1,1-methylenebis4-isocyanatocyclohexane), was found to be corrosive to the skin in guinea pigs.

METHYL ACETATE: No data available

2-methoxy-1-methylethyl acetate: Not classified based on available information.
Components:
2-methoxy-1-methylethyl acetate:
Test Type : Skin sensitization Species : Guinea pig Result : non-sensitizing

Germ cell mutagenicity
Test Type: Ames test Test system: Salmonella typhimurium Metabolic activation: with and without metabolic activation Result: negative Remarks: (ECHA)
Test Type: In vitro mammalian cell gene mutation test Test system: Chinese hamster ovary cells Metabolic activation: with and without metabolic activation Result: negative Remarks: (ECHA)

2-methoxy-1-methylethyl acetate: 2-methoxypropanol
Assessment: Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

HMDI POLYMER : No data available.

Carcinogenicity
IARC: No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
NTP: No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA: No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

N-Butyl acetate:
IARC No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC
OSHA No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.
NTP No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
ACGIH No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACG

2-methoxy-1-methylethyl acetate: Not classified based on available information.
IARC No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
OSHA No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.
NTP No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

HMDI POLYMER :

Oncogenicity: Most members of the diisocyanate category have not been tested for carcinogenic potential. Commercially available Poly-MDI was tested in a 2-year inhalation study in rats. The tested material contained 47% aromatic 4,4'-methylenediphenyl diisocyanate (MDI) and 53% higher molecular weight oligomers. Interim sacrifices at one year showed that males and females in the highest dose group (6 mg/m3) had treatment related histological changes in the nasal cavity, lungs and mediastinal lymph nodes. The incidence and severity of degeneration and basal cell hyperplasia of the olfactory epithelium and Bowman's gland hyperplasia were increased in males at the mid and high doses and in females at the high dose following the two year exposure period. Pulmonary adenomas were found in 6 males and 2 females, and pulmonary adenocarcinoma in one male in the high dose group. However, aliphatic hexamethylene diisocyanate (HDI) was found not to be carcinogenic in a two year repeated dose study in rats by the inhalation route. HDI has not been tested in mice by the inhalation route. Though the oral route is not an expected route of exposure to humans, it should be noted that in two year repeated dose studies by the oral route, aromatic toluene diisocyanate (TDI) and 3,3'-dimethoxy-benzidine-4,4'-diisocyanate (dianisidine diisocyanate, DADI) were found to be carcinogenic in rodents. TDI induced a statistically significant increase in the incidence of liver tumors in rats and mice as well as dose-related hemangiosarcomas of the circulatory system and has been classified by the Agency as a B2 carcinogen. DADI was found to be carcinogenic in rats, but not in mice, with a statistically increase in the incidence of pancreatic tumors observed.

Reproductive toxicity

2-methoxy-1-methylethyl acetate: 2-methoxypropanol
Effects on fertility : Species: Rat Application Route: Oral Dose: 0, 100, 300, 1000 mg/kg
General Toxicity - Parent: NOAEL: 1,000 mg/kg bw
General Toxicity F1: NOAEL: 1,000 mg/kg bw
Result: Animal testing did not show any effects on fertility.
Remarks: Information given is based on data obtained from similar substances.
Teratogenicity - Assessment : Clear evidence of adverse effects on development, based on animal experiments.

HMDI POLYMER : HEXAMETHYLENE DIISOCYANATE
Inhalation Not classified for female reproduction Rat NOAEL 0.002 mg/l 7 weeks
HEXAMETHYLENE DIISOCYANATE
Inhalation Not classified for development Rat NOAEL 0.002 mg/l 7 weeks
Inhalation Not classified for male reproduction Rat NOAEL 0.014 mg/l 4 weeks

Summary of evaluation of the CMR properties

N-Butyl acetate:
IARC No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC
OSHA No component of this product present at levels greater than or equal to 0.1% is on OSHA’s list of regulated carcinogens.
NTP No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
ACGIH No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACG

STOT-single exposure

N-Butyl acetate: 123-86-4:
Target Organs: Central Nervous system
Assessment: The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with naroctic effects
Inhalation - May cause respiratory irritation. - Respiratory system
---

HMDI POLYMER : HEXAMETHYLENE DIISOCYANATE POLYMER
Inhalation respiratory irritation May cause respiratory irritation NOAEL Not available
HEXAMETHYLENE DIISOCYANATE
Inhalation respiratory irritation May cause respiratory irritation Human and animal NOAEL Not available
Inhalation blood Not classified Human NOAEL Not available (occupational exposure)

STOT-repeated exposure
No data available

2-methoxy-1-methylethyl acetate: 2-methoxypropanol
Target Organs: Respiratory system
Assessment: The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation.

HMDI POLYMER : HEXAMETHYLENE DIISOCYANTE POLYMER
Inhalation immune system | blood Not classified Rat NOAEL 0.084 mg/l 2 weeks
HEXAMETHYLENE DIISOCYANTE
Inhalation liver | kidney and/or bladder Not classified Rat NOAEL 0.002 mg/l 3 weeks
Inhalation endocrine system Not classified Rat NOAEL 0.0014 mg/l 4 weeks
Inhalation blood Not classified Rat NOAEL 0.0012 mg/l 2 years
Inhalation nervous system Not classified Rat NOAEL 0.002 mg/l 7 weeks
Inhalation heart Not classified Rat NOAEL 0.001 mg/l 90 day

Aspiration hazard

No data available

HMDI POLYMER : No data available.

Additional information
Stability in water - 5 - 10 min at 20 °C
Remarks: Hydrolyzes on contact with water.

HMDI POLYMER : No data available.

N-Butyl acetate: Remarks: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.
Concentrations substantially above TLV value may casue narcotic effects
Solvents may degrease the skin

SECTION 12: Ecological information

Toxicity

N-Butyl acetate: 123-86-4:
Toxicity to fish: LC50 (Pimephales promelas (fathead minnow)): 18 mg/l Exposure time: 96 h Test Type: flow-through test

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (WAter flea)): 44 mg/l Exposure time: 48 h Test Type: static test

Harmful to aquatic life
This product has no known ecotoxicological effects.

Toxicity to algae static test ErC50 - Desmodesmus subspicatus (green algae) - > 77.4 mg/l - 72 h (OECD Test Guideline 201)
Toxicity to bacteria

----Component: Hexamethylene Diisocyante----

Endpoint Test Duration (hr) Species Value Source
LC50 96 Fish 22mg/L 1
EC50 72 Algae or other aquatic plants >77.4mg/L 2
NOEC 72 Algae or other aquatic plants 4.9mg/L 2

HEXAMETHYLENE DIISOCYANATE POLYMER :
Not Available
hexamethylene diisocyanate polymer
LC50 96 Fish 8.9mg/L (Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicit)
EC50 48 Crustacea 127mg/L (Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicit)
EC50 72 Algae or other aquatic plants >1-mg/L (Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicit)
EC0 24 Crustacea >=1-mg/L (Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicit)
hexamethylene diisocyanate
LC50 96 Fish 22mg/L (IUCLID Toxicity Data)
EC50 72 Algae or other aquatic plants >77.4mg/L (Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity)
NOEC 72 Algae or other aquatic plants 4.9mg/L (Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity)

N-Butyl acetate: 123-86-4:
Toxicity to fish:
LC50 (Pimephales promelas (fathead minnow)): 18 mg/l
Exposure time: 96 h
Test Type: flow-through test

Toxicity to daphnia and other aquatic invertebrates :
EC50 (Daphnia magna (WAter flea)): 44 mg/l
Exposure time: 48 h
Test Type: static test

Acute aquatic toxicity- Assessment:
Harmful to aquatic life.
Chronic aquatic toxicity- Assessment:
This product has no known ecotoxicological effects.

2-methoxy-1-methylethyl acetate: No data available on product

---
HMDI POLYMER : HEXAMETHYLENE DIISOCYANATE POLYMER
Not Available
hexamethylene diisocyanate homopolymer
LC50: > 100 mg/l (Danio rerio (zebra fish), 96 h)

EC50: > 100 mg/l (Daphnia magna (Water flea), 48 h)
ErC50: > 50 - < 100 mg/l, (scenedesmus subspicatus, 72 h)

hexamethylene diisocyanate
LC50 96 Fish 22 mg/L (IUCLID Toxicity Data)
EC50 72 Algae or other aquatic plants >77.4 mg/L (Europe ECHA Registered Substances - Eco-toxicological Information - Aquatic Toxicity)
NOEC 72 Algae or other aquatic plants 4.9 mg/L (Europe ECHA Registered Substances - Eco-toxicological Information - Aquatic Toxicity)

Persistence and degradability
Biodegradability aerobic - Exposure time 28 d Result: 42 % - Not readily biodegradable. (OECD Test Guideline 301F)
----Water/Soil Persistence, Persistence Air---
hexamethylene diisocyanate polymer--- Water/Soil/Air: HIGH
hexamethylene diisocyanate--- Water/Soil/Air: LOW

HEXAMETHYLENE DIISOCYANATE POLYMER :
hexamethylene diisocyanate polymer Water/Soil HIGH Air HIGH
hexamethylene diisocyanate Water/Soil LOW Air LOW

N-Butyl acetate: No data available

2-methoxy-1-methylethyl acetate: No data available on product

Bioaccumulative potential

hexamethylene diisocyanate polymer LOW (LogKOW = 7.5795)
hexamethylene diisocyanate LOW (LogKOW = 3.1956)

HEXAMETHYLENE DIISOCYANATE POLYMER :
hexamethylene diisocyanate polymer LOW (LogKOW = 7.5795)
hexamethylene diisocyanate LOW (LogKOW = 3.1956)

2-methoxy-1-methylethyl acetate: No data available on product

Mobility in soil
hexamethylene diisocyanatepolymer LOW (KOC = 18560000)
hexamethylene diisocyanate LOW (KOC = 5864)

N-Butyl acetate: No data available

Results of PBT and vPvB assessment
PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

Other adverse effects

HEXAMETHYLENE DIISOCYANATE POLYMER : No data available.

N-Butyl acetate: Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances

Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).
Additional ecological information: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Harmful to aquatic life.

2-methoxy-1-methylethyl acetate: Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I
Substances
Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

SECTION 13: Disposal considerations

Disposal methods

Product disposal
Waste material must be disposed of in accordance with the national and local regulations.
Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

Packaging disposal
Refer to section below Waste Treatment.

Waste treatment
This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. If it has been contaminated, it may be possible to reclaim the product by filtration, distillation or some other means. Shelf life considerations should also be applied in making decisions of this type. Note that properties of a material may change in use, and recycling or reuse may not always be appropriate.
Containers may still present a chemical hazard/ danger when empty.
If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorized landfill.
Where possible retain label warnings and SDS and observe all notices pertaining to the product.
Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked.

Sewage disposal

DO NOT allow wash water from cleaning or process equipment to enter drains.
It may be necessary to collect all wash water for treatment before disposal.
In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.
Where in doubt contact the responsible authority.
Consult State Land Waste Management Authority for disposal.

Other disposal recommendations
Must remain in a dry environment: Stability in water - 5 - 10 min at 20 °C
Remarks: Hydrolyzes on contact with water.

SECTION 14: Transport information

DOT (US)
UN Number: 1263
Class: 3
Packing Group: II

Proper Shipping Name: Paint Related Materials Reportable quantity (RQ): 331.87 lbs / 150.67 kg [41.834 gals / 158.36 L]. Package sizes shipped in quantities less than product RQ are not subject to the RQ transportation requirements
Marine pollutant: No
Poison inhalation hazard: No

IMDG
UN Number: UN1263
Class: 3
Packing Group: II
EMS Number: F-E, S-E
Proper Shipping Name: Paint Related Material

IATA
UN Number: UN1263
Class: 3
Packing Group: II
Proper Shipping Name: Paint Related Material

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

California Prop. 65 Components
This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

Canadian Domestic Substances List (DSL)
Chemical name: Acetic acid, butyl ester
CAS: 123-86-4

Chemical name: 2-Propanol, 1-methoxy-, acetate
CAS: 108-65-6

CERCLA Reportable Quantity
This material does not contain any components with a CERCLA RQ.

Clean Air Act
This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).
This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).
The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489):
123-86-4 n-Butyl acetate

Clean Water Act
The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:
123-86-4 n-Butyl acetate
The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:
123-86-4 n-Butyl acetate
This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

Massachusetts Right To Know Components

n-Butyl acetate
CAS number: 123-86-4

Conc	Components	CAS-No.
>=95%	Homopolymer of Hexamethylene Diisocyanate	28182-81-2
<=0.3%	Hexamethylene-1,6-Diisocyanate	822-06-0

New Jersey Right To Know Components
n-Butyl acetate
CAS number: 123-86-4

Conc	Components	CAS-No.
>=95%	Homopolymer of Hexamethylene Diisocyanate	28182-81-2
<=0.3%	Hexamethylene-1,6-Diisocyanate	822-06-0

Pennsylvania Right To Know Components
n-Butyl acetate
CAS number: 123-86-4

Conc	Components	CAS-No.
>=95%	Homopolymer of Hexamethylene Diisocyanate	28182-81-2
<=0.3%	Hexamethylene-1,6-Diisocyanate	822-06-0

SARA 302 Components
No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

No SARA hazards.

SARA 304 Extremely Hazardous Substances Reportable Quantity
This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards
Fire Hazard
Acute Health Hazard
Chronic Health Hazard
Refer to hazard classification information in Section 2

SARA 313 Components
This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Toxic Substances Control Act (TSCA) Inventory
All CAS declared ingredients are on the inventory

WHMIS Classification
B2: Flammable liquid
B3: Combustible Liquid
D2A: Very Toxic Material Causing Other Toxic Effect

15.2 Chemical Safety Assessment
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

SDSs 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.

HMIS Rating

Health	3
Flammability	3
Physical hazard	0
Personal protection	G

NFPA Rating

Health hazard	3
Fire hazard	3
Reactivity hazard	0
Special hazard	

SECTION 16: Other information

REV reason: Revised / formated for software program
Revision: 001
Version: 1.1
Revisionist: FMF

16.1 Further information/disclaimer

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by the manufacturer, including but not limited to the incorporation of products not specified by the manufacturer, or the use or addition of products in proportions not specified by the manufacturer. Regulatory requirements
Date of previous issue

16.2 Preparation information

The information herein is believed to be correct, but does not claim to be all inclusive and should be used only as a guide. Neither the above named supplier nor any of its affiliates or subsidiaries assumes any liability whatsoever for the accuracy of completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All chemical reagents must be handled with the recognition that their chemical, physiological, toxicological, and hazardous properties have not been fully investigated or determined. All chemical reagents should be handled only by individuals who are familiar with their potential hazards and who have been fully trained in proper safety, laboratory, and chemical handling procedures . Although certain hazards are described herein, we can not guarantee that these are the only hazards which exist. Our SDS are based only on data available at the time of shipping and are subject to change without notice as new information is obtained. Avoid long storage periods since the product is subject to degradation with age and may become more dangerous or hazardous. It is the responsibility of the user to request updated SDS for products that are stored for extended periods. Disposal of unused product must be undertaken by qualified personnel who are knowledgeable in all applicable regulations and follow all pertinent safety precautions including the use of appropriate protective equipment (e.g. protective goggles, protective clothing, breathing equipment, face mask, fume hood). For proper handling and disposal, always comply with federal, state and local regulations.