



The Alsa Corporation

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Material Safety Data Sheet

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Product code	Product name	
ST2012	HARDENER	

EMERGENCY PHONE : 800-535-5053 / 352-323-3500

1. Product Identification

Product name	Soft Feeling Paint - ST2012 Hardener
Chemical name of solid	Polyisocyanate resin
Chemical name of solvent	Isobutyl Isobutyrate / N-butyl acetate

2. Composition of Information on Ingredients

Chemical Name	EINECS-No	CAS Number	CONC.
Isobutyl Isobutyrate	202-612-5	97-85-8	15-25
n-butyl Acetate	204-658-1	123-86-4	1-10
Hexamethylene di-isocyanate	212-485-8	822-06-0	0-1
Poly isocyanate Resin	500-060-2	28182-81-2	50-80

3. Hazards Identification

Effects of (over) exposure: Irritation of skin, eyes and respiratory tract. Substance affects (central) nervous system.

Symptoms of (over) exposure:

Inhalation: Coughing, headache, dizziness, drowsiness, unconsciousness, nausea & Vomiting

Skin : As result of absorption through the intact skin, the substance may cause systemic toxic effects. Dry skin, redness.

Eyes: Pain, redness

Ingestion: Sore throat, stomach-ache, headache, dizziness, vomiting, dullness

EINECS

Danger Classification: Toxic

Risk phrases:

10	Flammable
23	Toxic by inhalation
36/37/38	Irritation to eyes, respiratory systems and skin
42/43	May cause sensitization by inhalation and skin contact

Safety phrases:

S1/2	Keep locked up and out of the reach of children
S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
S28	After contact with skin, wash immediately with soap and water.
S38	In case of insufficient ventilation, wear suitable respiratory equipment
S45	In case of accident or if you feel unwell, seek medical advice immediately

4. First-Aid Measures

Inhalation: Move to fresh air rest half upright position, loosen clothing. Artificial respiration in case of difficulty in breathing. Seek medical advice after significant exposure.

- Skin:** Wash off immediately with plenty of soap and water. Take all contaminated clothing off immediately. Seek medical advice.
- Eyes:** Rinse immediately with plenty of water. Eyelids should be held away from the eyeball to ensure thorough rinsing. Always seek medical advice.
- Ingestion:** **DO NOT** induce vomiting because of risk of aspiration. Rinse mouth with water. Seek medical advice.

5. Fire-Fighting Measures

Extinguishing measures

- **Suitable:** Powder, carbon dioxide, foam, water mist (only large amounts).
- **Not to be used:** Waterjet

Hazards thermal decomposition and combustion products

- In case of fire toxic fumes might be formed

Protective equipment

- Wear protective clothing and use self-contained breathing apparatus.

6. Accidental Release Measures

Evacuate non-emergency personnel. Isolate the area and prevent access. Remove ignition sources. Notify management. Put on protective equipment. Control source of the leak. Ventilate. Contain the spill to prevent it spreading into drains, sewers, water supplies or soils. To minimize vapor, cover the spillage with fire fighting foam (AFFF). Released material may be pumped into closed but not sealed metal container for disposal. For minor leak, cover spill area with suitable absorbent material (Kitty litter, oil dry, etc.). Saturate absorbent material with neutralization solution and mix. Wait 15 minutes. Collect material in open-head metal containers. Repeat application of decontamination solution with scrubbing, followed by absorbent until the surface is decontaminated. Apply lid loosely and allow containers to vent for 72 hours to let carbon dioxide (CO₂) escape.

Neutralization solutions

1. A mixture of 75% water 20% non-ionic surfactant (e.g. Poly-Tergent SL-62), Tergitol TMN-10) and 5% propanol
2. A mixture of 80% water, 20% non-ionic surfactant (e.g. Poly-Tergent SL-62, Tergitol TMN-10)
3. A mixture of 90% water, 3-8% Ammonium hydroxide and 2% liquid detergent

Spills may be reportable to the national Response Center (800)424-8802 and to state and/or local agencies

7. Handling and Storage

Do not breathe vapors, mists or dusts. Use adequate ventilation to keep airborne isocyanate levels below the exposure limits. Wear respiratory protection if material is heated, sprayed, used in contained space or if the exposure limit is exceeded. Individual with lung or breathing problems or prior alleged reactions to isocyanates must not be exposed to vapor or spray mist. Avoid contact with eyes & skin. Store in tightly closed containers to prevent moisture contamination.

8. Exposure Controls / Personal Protection

Country specific exposure limits have not been established or are not applicable unless listed below

Chemical Name	TLV*			
	EINECS No	CAS Number	STEL	LTEL (PEL)
Isobutyl Isobutyrate	202-612-5	97-85-8	NE	NE
n-butyl Acetate	204-658-1	123-26-4	200 ppm	150 ppm
Hexamethylene di-isocyanate	212-485-8	822-06-0	0.02ppm	0.005ppm

Industrial Hygiene/ Ventilation Measures.

Good industrial hygiene is achieved through engineering control such as ventilation. When that doesn't provide full protection the use of respirators and other personal protective equipment is an absolute necessity. Exhaust air may be cleaned by scrubbers or filter, curing ovens must be ventilated to prevent emissions into the workplace.

Respiratory Protection:

When the airborne concentration of HDI monomer and HDI polyisocyanate exceeds the TLV (Threshold Limit Values) use a supplied air respirator either positive pressure or continuous flow type). Observe OSHA regulations for respirator use (29 CFR 1910.134). At elevated temperature use a supplied air (either positive pressure or continuous flow) respirator even in non-spray application.

Hand Protection: Gloves should be worn. Nitrile rubber gloves, Butyl rubber gloves, Neoprene gloves.

Eye Protection: Chemical safety goggle, with a face shield when there is a greater risk of splash.

Skin and Body Protection: Avoid skin contact. Use appropriate clothing to prevent skin contact. Gloves, long sleeved shirts and pants.

Medical Surveillance: All applicants who are assigned to an isocyanate work area should undergo a pre-placement medical evaluation. A history of eczema or respiratory allergies such as hay fever are possible reasons for medical exclusion from isocyanate areas. People with asthma should be excluded from isocyanate work area. Once a worker has been diagnosed as sensitized to isocyanate, no further exposure can be permitted.

Additional Protective Measures: Emergency Showers & Eye Wash Stations should be available.

9. Physical and Chemical Properties

Physical Status	Viscous
Flash point	82°F
Specific Gravity	0.96-1.06
Lower explosion limit	1.7
Upper explosion limit	7.6
Solubility in water	Not soluble
Boiling Range	248-304°F

10. Stability and Reactivity

Stable under normal conditions of use and storage

Materials to avoid: Water, amines, strong bases, alcohols, copper alloys

Hazards Reactions: Contact with moisture, other materials that react with isocyanate, or temperatures above 350°F (177°C) may cause polymerization.

Hazardous decomposition products By fire and high heat: carbon dioxide, carbon monoxide, oxides of nitrogen, dense black smoke, hydrogen cyanide, isocyanic acid & other undetermined compounds.

11. Toxicological Information

Acute Oral Toxicity

LD50 > 5,000 mg/kg rat

Skin Irritation

Rabbit, exposure time 4 hours, slightly irritating

Eye Irritation

Rabbit, slightly irritating

12. Ecological Information

Biodegradation: 1X exposure time: 28d, not readily biodegradable
Acute & Prolonged Toxicity to fish LCO: > 100mg/l (Zebra Fish (Brachydanio reiro),96h)
Acute Toxicity to Aquatic Invertebrates ECO:> 100 mg/l (water flea (Daphnia magna) , 48h)
Toxicity to Aquatic Plants 100 mg/l (Green algae (scenedesmus subspicatus), 72h)

13. Disposal Considerations

Work Disposal Method:

Waste disposal should be in accordance with existing federal, state and local environmental control laws. Incineration is the preferred method.

Empty Container Precautions:

Do not heat or cut empty container with electric or gas torch. Do not reuse container without thorough cleaning. Remove all products before disposal.

14. Transport Information

Land transport (DOT) proper shipping name:

Other regulated substances, liquid, N.O.S (Contains Homopolymer of Hexamethylene Diisocyanate)

US Department of Transportation

Hazard Class 3

Shipping Name

Resin Solution

ID Number

UN 1866

Packing Group

III

Labels

Flammable Liquid

Emergency Guide

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15. Regulatory Information

Inventory status

Status

Inventory

United States (ISCA)

Y

Canada (DSL)

Y

Europe (EINECS/ELINCS)

P

Australia (AICS)

Y

Japan (MITI)

Y

South Korea (KECL)

Y

Y: All ingredients are on the inventory

E: All ingredients are on the inventory or exempt from listing

P: One or more ingredients fall under the polymer exemption or are on the no longer polymer list. All other ingredients are on the inventory or exempt from listing

N: Not determined or one or more ingredients are not on the inventory and are not exempt from listing

Federal Regulations

Inventory issues:

All functional components of this product are listed on the TSCA inventory.

SARA Title III Hazard Classes:

Fire Hazard: Yes

Reactive Hazard Yes

Release of Pressure No

Active Health Hazard Yes

Chronic Health Hazard Yes

SARA Extremely Hazardous Substance (EHS)/CERCLA Hazardous Substances

Ingredient CERCLA/SARA RQ

Butyl acetate 5000 lbs

Hexamethylene Diisocyanate (HDI) 100 lbs

State Regulations:

This product does not contain any components that are regulated under California Proposition 65

16. Additional Information

National Fire Protection Association Hazard Ratings (NFPA (R)):

Health 2

Flammability 3

Reactivity 0

PPE

HMIS

Health 2

Flammability 3

Reactivity 1

PPE

Disclaimer:

The information of this MSDS is based on the present state of our knowledge and on current federal laws. The product is not to be used for other purposes than those specified under Section I without first obtaining written handling instruction. It is always the responsibility of the user to take all necessary steps in order to fulfill the demand laid down in the rules and legislation. The information in this MSDS is meant as a description of the safety measurement of our product; it is not to be considered as a guarantee of the products' properties.