

AS-220

Safety Data Sheet

Prepared according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date: 02/07/2017

Supersedes: 11/15/2016

Version: 6.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name : AS-220

Product form : Mixture

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

Use of the substance/mixture : Aromatic Solvent (Blend of Aromatic Hydrocarbons)

1.3. Details of the supplier of the safety data sheet

JX NIPPON CHEMICAL TEXAS INC.

10500 Bay Area Blvd.

Pasadena, Texas 77507

MRoot@jxncti.com

1.4. Emergency telephone number

Emergency number : 1-703-527-3887 (CHEMTREC)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Flam. Liq. 4	H227
Skin Irrit. 2	H315
Eye Irrit. 2A	H319
Carc. 2	H351
Repr. 2	H361
Aquatic Acute 2	H401
Aquatic Chronic 2	H411

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) :



GHS07

GHS08

GHS09

Signal word (GHS-US) :

Danger

Hazard statements (GHS-US) :

H227 - Combustible liquid
 H315 - Causes skin irritation
 H319 - Causes serious eye irritation
 H351 - Suspected of causing cancer
 H361 - Suspected of damaging fertility or the unborn child
 H401 - Toxic to aquatic life
 H411 - Toxic to aquatic life with long lasting effects

Precautionary statements (GHS-US) :

P201 - Obtain special instructions before use
 P202 - Do not handle until all safety precautions have been read and understood
 P210 - Keep away from heat, open flames, sparks. - No smoking
 P264 - Wash hands, forearms and face thoroughly after handling
 P273 - Avoid release to the environment
 P280 - Wear eye protection, protective clothing, protective gloves
 P302+P352 - If on skin: Wash with plenty of soap and water
 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 first aid instructions on this label)
 P332+P313 - If skin irritation occurs: Get medical advice/attention
 P337+P313 - If eye irritation persists: Get medical advice/attention
 P362+P364 - Take off contaminated clothing and wash it before reuse
 P370+P378 - In case of fire: Use carbon dioxide (CO₂), dry extinguishing powder to extinguish
 P391 - Collect spillage
 P403+P235 - Store in a well-ventilated place. Keep cool
 P405 - Store locked up
 P501 - Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous

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2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%
Benzene, ethylenated, residues, distillation lights	(CAS No) 178535-25-6	60 – 100*
Benzene, triethyl-	(CAS No) 25340-18-5	15 – 40*
Naphthalene	(CAS No) 91-20-3	<= 2*
Ethylbenzene	(CAS No) 100-41-4	<= 0.1
Toluene	(CAS No) 108-88-3	<= 0.1
Cumene	(CAS No) 98-82-8	<= 0.1

*In accordance with paragraph (i) of the OSHA Hazard Communication Standard (29 CFR §1910.1200), the specific chemical identity or exact weight % has been withheld as a trade secret

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures general : If exposed or concerned, get medical attention/advice. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before re-use. Never give anything to an unconscious person.
- First-aid measures after inhalation : IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if breathing is affected. If breathing is difficult, supply oxygen.
- First-aid measures after skin contact : IF ON SKIN (or clothing): Remove affected clothing and wash all exposed skin with water for at least 15 minutes. If irritation develops or persists, get medical attention.
- First-aid measures after eye contact : IF IN EYES: Immediately flush with plenty of water for at least 15 minutes. Remove contact lenses if present and easy to do so. If pain, blinking, or irritation develops or persists, get medical attention. Continue rinsing.
- First-aid measures after ingestion : IF SWALLOWED: rinse mouth thoroughly. Do not induce vomiting without advice from poison control center or medical professional. Get medical attention if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries : Causes skin irritation. Causes serious eye irritation. Suspected of causing cancer. Suspected of damaging fertility or the unborn child.
- Symptoms/injuries after inhalation : May cause respiratory irritation.
- Symptoms/injuries after skin contact : Causes skin irritation.
- Symptoms/injuries after eye contact : Causes serious eye irritation.
- Symptoms/injuries after ingestion : May cause gastrointestinal irritation.
- Chronic symptoms : Suspected of causing cancer. Suspected of damaging fertility. Suspected of damaging the unborn child.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Carbon dioxide. Dry chemical.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Combustible liquid.
- Explosion hazard : Product is not explosive.
- Reactivity : No dangerous reactions known under normal conditions of use.

5.3. Advice for firefighters

- Precautionary measures fire : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Do not dispose of fire-fighting water in the environment.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Self-contained breathing apparatus.

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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Evacuate area. Ventilate area. Keep upwind. Spill should be handled by trained clean-up crews properly equipped with respiratory equipment and full chemical protective gear (see Section 8).

6.1.1. For non-emergency personnel

Protective equipment : Wear Protective equipment as described in Section 8.

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Wear suitable protective clothing, gloves and eye or face protection. Approved supplied-air respirator, in case of emergency.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Scoop solid spill into closing containers or bags. This material and its container must be disposed of in a safe way, and as per local legislation.

6.4. Reference to other sections

See Sections 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Do not handle until all safety precautions have been read and understood. Do not get in eyes, on skin, or on clothing. Avoid breathing mist, vapours. Keep away from sources of ignition - No smoking. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a dry, cool and well-ventilated place. Keep the container tightly closed. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Benzene, ethylenated, residues, distillation lights (178535-25-6)	
Remark (ACGIH)	OELs not established
Remark (OSHA)	OELs not established
Naphthalene (91-20-3)	
ACGIH TWA (ppm)	10
ACGIH STEL (ppm)	15
Remark (ACGIH)	5 TWA notice of intended changes TLVs
OSHA PEL (TWA) (mg/m ³)	50
OSHA PEL (TWA) (ppm)	10
Benzene, triethyl- (25340-18-5)	
Remark (ACGIH)	OELs not established
Remark (OSHA)	OELs not established
Ethylbenzene (100-41-4)	
ACGIH TWA (ppm)	20
Remark (ACGIH)	upper respiratory tract irritation; kidney damage (nephropathy); cochlear impairment
OSHA PEL (TWA) (mg/m ³)	435
OSHA PEL (TWA) (ppm)	100
OSHA PEL (STEL) (mg/m ³)	545
OSHA PEL (STEL) (ppm)	125
Toluene (108-88-3)	
ACGIH TWA (ppm)	20

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Toluene (108-88-3)	
Remark (ACGIH)	Visual impair; female repro;
Cumene (98-82-8)	
ACGIH TWA (ppm)	50
OSHA PEL (TWA) (mg/m ³)	245
OSHA PEL (TWA) (ppm)	50

8.2. Exposure controls

Appropriate engineering controls : Provide adequate general and local exhaust ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Use explosion-proof equipment with flammable materials. Ensure adequate ventilation, especially in confined areas.

Personal protective equipment : Gloves. Protective goggles. Protective clothing.



Hand protection : Use gloves chemically resistant to this material when prolonged or repeated contact could occur. Gloves should be classified under Standard EN 374 or ASTM F1296. Suggested glove materials are: Neoprene, Nitrile/butadiene rubber, Polyethylene, Ethyl vinyl alcohol laminate, PVC or vinyl. Suitable gloves for this specific application can be recommended by the glove supplier.

Eye protection : Wear eye protection, including chemical splash goggles and a face shield when possibility exists for eye contact due to spraying liquid or airborne particles.

Skin and body protection : Wear long sleeves, and chemically impervious PPE/coveralls to minimize bodily exposure.

Respiratory protection : Use NIOSH-approved dust/particulate respirator. Where vapor, mist, or dust exceed PELs or other applicable OELs, use NIOSH-approved respiratory protective equipment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Non-viscous liquid.
Color	: Clear.
Odor	: Aromatic.
Odor Threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: < -50 °C (- 58 °F)
Freezing point	: No data available
Boiling point	: 180 - 277 °C (356 - 531 °F)
Flash point	: 71 - 88 °C (160 - 190 °F) (PMCC)
Auto-ignition temperature	: 400 °C (752 °F) estimated
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: 0.05 mm Hg (0.001 psi) @ 38 °C (100 °F)
Relative vapour density at 20 °C	: 5.5 (Air = 1)
Relative density	: 0.91 (Water = 1)
Solubility	: Water: ≈ 20 ppm @ 20 °C (68 °F)
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

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SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known under normal conditions of use.

10.2. Chemical stability

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

10.3. Possibility of hazardous reactions

Strong oxidizing materials may ignite this material.

10.4. Conditions to avoid

Avoid contact with : Incompatible materials.

10.5. Incompatible materials

Strong oxidizers.

10.6. Hazardous decomposition products

Carbon monoxide. Asphyxiants.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Naphthalene (91-20-3)	
LD50 oral rat	1110 mg/kg
LC50 inhalation rat (mg/l)	> 340 mg/m ³ 1 h

Ethylbenzene (100-41-4)	
LD50 oral rat	3500 mg/kg
LD50 dermal rabbit	15400 mg/kg
LC50 inhalation rat (mg/l)	17.2 mg/l/4h

Toluene (108-88-3)	
LD50 oral rat	2600 mg/kg
LD50 dermal rabbit	12000 mg/kg
LC50 inhalation rat (mg/l)	12.5 mg/l/4h

Cumene (98-82-8)	
LD50 dermal rabbit	12300 µl/kg
LC50 inhalation rat (ppm)	> 3577 ppm 6 h

Skin corrosion/irritation : Causes skin irritation.
Serious eye damage/irritation : Causes serious eye irritation.
Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Suspected of causing cancer.

Naphthalene (91-20-3)	
IARC group	2B - Possibly carcinogenic to humans
National Toxicology Program (NTP) Status	3 - Reasonably anticipated to be Human Carcinogen

Ethylbenzene (100-41-4)	
IARC group	2B - Possibly carcinogenic to humans

Cumene (98-82-8)	
IARC group	2B - Possibly carcinogenic to humans

Benzene (71-43-2)	
IARC group	1 - Carcinogenic to humans
National Toxicology Program (NTP) Status	2 - Known Human Carcinogens

Reproductive toxicity : Suspected of damaging fertility or the unborn child.
Specific target organ toxicity (single exposure) : Not classified
Specific target organ toxicity (repeated exposure) : Not classified
Aspiration hazard : Not classified
Symptoms/injuries after inhalation : May cause respiratory irritation.
Symptoms/injuries after skin contact : Causes skin irritation.
Symptoms/injuries after eye contact : Causes serious eye irritation.

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Symptoms/injuries after ingestion : May cause gastrointestinal irritation.
Chronic symptoms : Suspected of causing cancer. Suspected of damaging fertility. Suspected of damaging the unborn child.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Toxic to aquatic life. Toxic to aquatic life with long lasting effects.

12.2. Persistence and degradability

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Persistence and degradability	No information available.

12.3. Bioaccumulative potential

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Bioaccumulative potential	No information available.

12.4. Mobility in soil

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Ecology - soil	No information available.

12.5. Other adverse effects

Other adverse effects : No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Obtain the consent of pollution control authorities before discharging to wastewater treatment plants.

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Do not allow the product to be released into the environment.

SECTION 14: Transport information

In accordance with DOT

Transport document description : NA1993 Combustible liquid, n.o.s. (Contains: Polyethylbenzene, Triethylbenzene, Naphthalene)), 3, III

DOT NA no. : NA1993

Proper Shipping Name (DOT) : Combustible liquid, n.o.s.
Contains: Polyethylbenzene, Triethylbenzene, Naphthalene)

Class (DOT) : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120

Packing group (DOT) : III - Minor Danger

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 60 L

DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 220 L

DOT Vessel Stowage Location : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel

Additional information

Emergency Response Guide (ERG) Number : 128

Other information : No supplementary information available.

Transport by sea

Transport document description : UN3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (Contains: Polyethylbenzene, Triethylbenzene, Naphthalene), 9, III, MP

UN-No. (IMDG) : 3082

Proper Shipping Name (IMDG) : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Contains: Polyethylbenzene, Triethylbenzene, Naphthalene)

Class (IMDG) : 9 - Miscellaneous dangerous substances and articles

Hazard labels (IMDG)




Packing group (IMDG) : III - substances presenting low danger

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Air transport

Transport document description	: UN3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (Contains: Polyethylbenzene, Triethylbenzene, Naphthalene), 9, III, MP
UN-No.(IATA)	: 3082
Proper Shipping Name (IATA)	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Contains: Polyethylbenzene, Triethylbenzene, Naphthalene)
Class (IATA)	: 9 - Miscellaneous Dangerous Goods
Hazard labels (IATA)	
Packing group (IATA)	: III - Minor Danger
Other information	: Per IATA special provision A197, UN3082 substances may be shipped as "not restricted" provided that the net quantity in any receptacle does not exceed 5 kg or 5L and the packaging used meets defined standards.

SECTION 15: Regulatory information

15.1. US Federal regulations

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All chemical substances in this product are listed in the EPA (Environment Protection Agency) TSCA (Toxic Substances Control Act) Inventory or are exempt

SARA Section 311/312 Hazard Classes	Delayed (chronic) health hazard Immediate (acute) health hazard Fire hazard
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Naphthalene (91-20-3)

Section 302 (EHS) TPQ	
Section 304 EHS RQ	
CERCLA RQ	100 lb
Section 313	Listed on US SARA Section 313

Ethylbenzene (100-41-4)

Section 302 (EHS) TPQ	
Section 304 EHS RQ	
CERCLA RQ	1000 lb
Section 313	Listed on US SARA Section 313

Toluene (108-88-3)

Section 302 (EHS) TPQ	
Section 304 EHS RQ	
CERCLA RQ	1000 lb
Section 313	Listed on US SARA Section 313

Cumene (98-82-8)

Section 302 (EHS) TPQ	
Section 304 EHS RQ	
CERCLA RQ	5000 lb
Section 313	Listed on US SARA Section 313

Benzene (71-43-2)

Section 302 (EHS) TPQ	
Section 304 EHS RQ	
CERCLA RQ	10 lb
Section 313	Listed on US SARA Section 313

15.2. International regulations

No additional information available.

15.3. US State regulations

California Proposition 65

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WARNING! This product contains chemicals known to the state of California to cause cancer, birth defects, or other reproductive harm.

Naphthalene (91-20-3)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significance risk level (NSRL)
Yes	No	No	No	5.5 µg/day

Ethylbenzene (100-41-4)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significance risk level (NSRL)
Yes	No	No	No	54 (inhalation) µg/day 41 (oral) µg/day

Toluene (108-88-3)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	Maximum Allowable Dose Levels (MADL)
No	Yes	No	No	7000 µg/day

Cumene (98-82-8)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significance risk level (NSRL)
Yes	No	No	No	Not available

Benzene (71-43-2)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significance risk level (NSRL)
Yes	Yes	No	Yes	6.4 (oral) µg/day 13(inhalation) µg/day

Naphthalene (91-20-3)				
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List				

Ethylbenzene (100-41-4)				
U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Massachusetts - Right To Know List U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List				

Toluene (108-88-3)				
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List U.S. - Pennsylvania - RTK (Right to Know) List				

Cumene (98-82-8)				
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List				

Benzene (71-43-2)				
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List				

SECTION 16: Other information

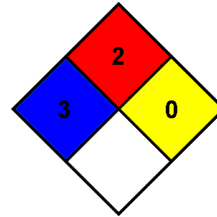
Indication of changes : Revision 6.0
Revision date : 02/07/2017
Other information : Author: BCS.

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- NFPA health hazard : 3 - Short exposure could cause serious temporary or residual injury even though prompt medical attention was given.
- NFPA fire hazard : 2 - Must be moderately heated or exposed to relatively high temperature before ignition can occur.
- NFPA reactivity : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



HMIS III Rating

- Health : 3*
- Flammability : 2
- Physical : 0
- Personal Protection :

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product