











Date Revised:	March 2020	Overall Task Risk Rating:	A
Description:	Activities that require workers to use hazardous agents (i.e. chemical agents, physical agents and biological agents) or activities that may expose workers to hazardous agents. Hazardous agents that Gazzola employees are commonly exposed to include: Asphalt, Diesel Fuel, Orange Blast, hot temperatures, loud environments, etc....		
Location(s):	Office, Shop, Asphalt Plant & Construction Projects		
Associated Documents: Housekeeping WTS, Compressed Gas WTS, Manual Material Handling WTS, Noise WTS			

RED FLAGS (HOLD WORK UNTIL CORRECTED):

Note:

- If a product is unlabeled or the label is illegible, do not use the product
- If the worker has not been trained in WHMIS that worker must not use, transport or handle hazardous products
- the SDS states required PPE to be worn when handling a product, do not proceed before obtaining and donning that PPE

PERSONAL PROTECTIVE EQUIPMENT (CSA APPROVED)

									
Head Protection	Foot Protection	High-Vis Protection	Hearing Protection	Hand Protection	Eye Protection	Respiratory Protection	Skin Protection	Face Protection	Fall Protection
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Note: No specific PPE required.

- When onsite one must adhere to the minimum site requirements (i.e. Safety Boots, Hard Hat & High Visibility Protection). Safety Glasses when necessary or required by SDS's
- Additional PPE requirements specific to the hazardous product will be stated in the SDS or on the label of the product, or addressed through task specific training

SAFE WORK PRACTICES (SWP)

General Safe Work Practices:

- Workers who are uncertain how to work safely with a hazards agent are to ask their foreman/superintendent for assistance before starting
- Start the work only when you are certain that you understand the work, the hazards and you have implemented the appropriate controls
- Unsafe conditions and situations must be reported to Foreman/Superintendents immediately (and stop work until the hazard is controlled)

Designated Substances (D.S.):

- Defined in the Occupational Health and Safety Act as "a designated substance to which the exposure of a worker is prohibited, regulated, restricted, limited or controlled" These include: Acrylonitrile, Arsenic, Asbestos, Benzene, Coke Oven Emissions, Ethylene Oxide, Isocyanates, Lead, Mercury, Silica and Vinyl Chloride
- Foreman / Superintendents are trained to identify D.S. & their likely exposure routes, and implement the necessary controls
- A designated substance Gazzola Paving Limited may encounter is asbestos (which was used in road paving materials) - Other D.S. (i.e. lead) are not encountered at this time
- All employees shall wear the appropriate PPE where the potential exposure cannot be reduced below the occupational exposure limit
- When there is likelihood of site exposure, appropriate PPE will be provided with instructions covering use, care and maintenance
- No modification or removal of the specified PPE will be tolerated inside identified area
- Additional control methods will be implemented to ensure the containment of D.S.

Routes of Entry of Chemical or Biological Agents (how hazardous agents enter the body):

- Ingestion – Entry of hazardous agents through the mouth by eating, drinking or smoking with contaminated hands. Always wash hands or any affected part of the body immediately after use of a hazardous product
- Absorption – When a hazardous agent touches your skin, it can enter through your skin, into your bloodstream. The bloodstream can then transport the chemical through the body potentially affecting different parts of your body

- Inhalation - Breathing hazardous agents through your nose and mouth into your lungs is one of the most common routes of entry into the body. Gases, dusts and smoke can enter your body and cause damage to your respiratory system or they can pass through the lungs, into your bloodstream and be transported to other parts of the body
- Injection - Hazardous agents can be injected into the body inadvertently or otherwise (i.e. stepping on a nail)

General **Chemical & Biological** Hazardous Agents Practices:

- Ask Foreman / Superintendents questions Consult the SDS, and fully understand the risks before handling a hazardous material
- The SDS is available onsite either in the SDS Binder, on via the online database for which workplace computers have desktop links and Foremen / Superintendents have access on their phones
- Report all new products to the Health and Safety Coordinator so the SDS can be requested and made available

Supplier Labels:

- Ensure all hazardous agents have labels and that the labels are legible
- Labels must not be removed, modified or altered
- Report any unlabeled products or illegible labels to the Foreman/Superintendent (who shall ensure a proper workplace label is created)



















Workplace Labels:

- Workplace labels must appear on all controlled products produced within the workplace
- If hazardous products are decanted from an original container to a new container, a Workplace Label must be affixed to the new container
- Workplace labels must include the product name (as it appears on the SDS), Information for safe handling and a statement saying that the SDS is available

Job Site Use, Storage & Transportation:

- Read and follow SDS and manufacturers instructions
- Comply with training & PPE requirements stated in the SDS
- Ensure proper storage conditions & locations (found in SDS)
- Manufacturer supplied chemicals must be stored in their original containers
- Ensure adequate ventilation (i.e. via fans) to reduce workers' exposure
- Practice good housekeeping
- Store chemicals in sealed containers
- No smoking near flammable or combustible materials (post signs where necessary)
- Adequate fire extinguishers must be located in close proximity and readily accessible
- Immediately dispose of all empty or expired containers
- Ensure proper transportation (Some instructions are in the SDS, but consult the Transportation of Dangerous Goods legislation)

Whmis Classes & Pictograms (WHMIS 1988 and WHMIS 2015)

WHMIS 1988 Hazard Class	WHMIS 1988 Symbols	WHMIS 2015 Symbols	WHMIS 2015 Hazard Class
A			Gases Under Pressure
B1 to B6			Flammables, Self-Heating, Emit Flammable Gases, Pyrophoric Gases, Liquids & Solids Organic Peroxides
C			Oxidizing Gases, Liquids, Solids
D1			Acute Toxicity - Oral, Dermal, Inhalation
D2			Eye Irritation, Skin Irritation Skin/Respiratory Sensitization, Carcinogenicity Mutagenicity Reproductive Hazards
D3			Biohazardous Infectious Materials
E			Skin/Eye Corrosion Corrosive to Metals
F			Self-Reactive Substances Organic Peroxides
N/A	N/A		Explosive Substances (Explosives are still covered under WHMIS exclusions for now)
N/A	N/A		Aspiration, STOT (Single Exposure, Repeated Exposure)
N/A	N/A	N/A	Combustible Dusts
N/A	N/A	N/A	Simple Asphyxiants
N/A	N/A	Use appropriate symbol	Physical Hazards Not Otherwise Classified, Health Hazards Not Otherwise Classified

Spills:

- Inform the foreman / superintendent and call any respective abatement / disposal / clean-up professionals as needed
- Determine the source of the leak or spill
- Follow the spill clean-up procedures outlined in the SDS

- Contain the spill using the spill-kit materials and use a shovel to lift and dispose of materials/chemicals into spill kit containers
- If the spill is large, prevent the spill from spreading by using spill-kit materials to dam the spill
- Waste material must be placed in the appropriate containers and removed from site

General **Physical** Hazardous Agents Practices:

- Physical Agents are sources of energy that may cause injury or disease

Noise:

- The following can produce harmful levels of noise: equipment engines, power drilling / sawing, air hammering / blasting, compressors, drills, jack hammers and quick cut saws
- Depending on the noise level, duration of exposure, and other factors, a temporary or permanent hearing loss may result
- Noise may be harmful at levels that one does not find irritating - therefore, controls are based on general potential for hearing loss
- Waiting for personal discomfort before taking preventive measures may be too late to avoid a permanent noise-induced hearing loss
- Ensure workers wear CSA approved hearing protection, appropriate for the noise levels to which they may be exposed, when allowable noise exposure limits are exceeded (85dBA over an 8-hour period)
- Ensure workers are trained on the selection and use of hearing protection
- Safety processes can be ineffective when a site has excessive noise: back up beepers, communication with others on site, etc....

Vibration:

- Use low vibration tools and equipment, whenever possible
- Modify work procedures to reduce the vibration exposure, time and frequency
- Get out of your vehicle (in a safe location) for a few minutes to stand, stretch, and give your body a break from vibration

Heat Stress:


- When the weather forecast predicts a Humidex exceeding 42° Celsius, management will discuss with foreman / superintendents what measures to employ to best protect the workers
- Controls for prevention of heat related illnesses: hydrate, take breaks as needed, use the Buddy System (work in pairs and look out for your co-workers), wear light clothing
- Signs and Symptoms of heat related illnesses are high body temperature, confusion, headache, nausea, thirst, rapid /or/ weak pulse
- If you think someone has heat stroke or heat exhaustion: call 911, inform the foreman / superintendent and begin First Aid

Heat



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Other Risk Factors:

- High Humidity
- Specialized PPE 
- Physical Activity
- Dehydration
- Fatigue
- Direct Sun Exposure
- No Breeze
- Not Acclimatized
- Pre existing health problems & associated medications

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Heat Related Illnesses:

- Sunburn
- Heat Cramps
- Fainting
- Heat Exhaustion
- Heat Stroke



Cold Stress:

- Frostbite and hypothermia are caused by exposure to severe cold or by contact with extremely cold objects (i.e. metallic objects)
- Once damaged, tissues will always be more susceptible to future frostbite
- Controls include wearing several layers of warm clothing with a waterproof and wind-resistant outer layer and use the Buddy System
- Frostbite Signs and Symptoms are sharp, prickling sensation, skin looks waxy and feels numb
- Hypothermia Signs and Symptoms are shivering, blue lips and fingers, lack of coordination, drowsiness
- If you think someone has signs of cold related illnesses, inform the foreman / superintendent, move the person to a warm area, remove wet clothing, warm affected area gradually, seek medical attention in sever cases

Radiation:

- Foreman / superintendents must identify workplace activities, where there is a risk of exposing workers to radiation
- Workers must be removed from workplace activities, where there is a risk of exposing workers to radiation



HAZARDOUS AGENTS (CHEMICAL, PHYSICAL & BIOLOGICAL)

Inspections:

- Supervisors must monitor physical agents in the workplace, to ensure workers are not overexposed to respective allowable levels

Training:

- Employee Orientations (including roles, responsibilities, applicable workplace task standards, WHMIS, etc.)
- Workers exposed to, or required to work with WHMIS controlled products / material, must be trained in WHMIS accordingly
- Workers who may be exposed to hazardous agents will receive training regarding the potential hazards and controls
- Ensure workers are trained on the selection and use of hearing protection

Personal Protective Equipment:

- All workers using Chemical or Biological Agents, must wear the required personal protective equipment set out in its SDS
- Workers on construction projects must wear, at a minimum, Safety Boots, Hard Hat & High Visibility Protection). Safety Glasses when necessary or required or as required by SDS's
- Eye protection is required when completing tasks that may cause debris / objects to dislodge or become airborne
- Ensure workers wear CSA approved hearing protection appropriate for the noise levels to which they may be exposed
- All employees shall wear the appropriate PPE where the potential exposure of a designated substance cannot be reduced below the occupational exposure limit
- When there is likelihood of site exposure, appropriate PPE will be provided with instructions covering use, care and maintenance
- No modification or removal of the specified PPE will be tolerated inside identified area

JOB HAZARD AND RISK ANALYSIS		RISK RATING SYSTEM
		A High risk of injury or equipment / property damage. B Medium risk of injury or equipment / property damage. C Low risk of injury or equipment / property damage.
TASK HAZARDS	TASK CONTROLS	RATING
<ul style="list-style-type: none"> Lack of training and education 	<ul style="list-style-type: none"> Workers receive WHMIS training during employee orientations & specific, task-related training Workers who may be exposed to hazardous agents will receive training regarding the potential hazards and controls 	B
<ul style="list-style-type: none"> Lack of proper PPE 	<ul style="list-style-type: none"> Workers using Chemical or Biological Agents, must wear the required PPE set out in its SDS Workers shall wear appropriate PPE where the potential exposure of a designated substance cannot be reduced below the occupational exposure limit Ensure all workers are trained in the PPE that they require 	B
<ul style="list-style-type: none"> Lack of Labeling/Product Identification 	<ul style="list-style-type: none"> Supplier labels must be affixed to containers of controlled products When transferring / decanting a controlled product, a workplace label is to placed on the new container A workplace label must appear on all controlled products produced in the workplace 	C
<ul style="list-style-type: none"> Material Handling and Storage Procedures not Followed 	<ul style="list-style-type: none"> Consult SDS and follow the requirements set out therein (i.e. handling, storage, & disposal procedures) Flammable liquids are to be handled in well-ventilated areas (outdoors when possible) Ensure products are stored in appropriate containers and locations (i.e. outdoors) as indicated in the SDS Ensure adequate signage is posted (i.e. no smoking around Flammable product storage) 	C
<ul style="list-style-type: none"> Spills 	<ul style="list-style-type: none"> Inform the Foreman / Superintendent and call any respective abatement / disposal / clean-up professionals as needed Follow spill clean-up procedures outlined in the SDS 	C



HAZARDOUS AGENTS (CHEMICAL, PHYSICAL & BIOLOGICAL)

<ul style="list-style-type: none"> Improper transportation of materials (i.e. unsecure) 	<ul style="list-style-type: none"> Ensure products are transported correctly with respect to any statements in the SDS and the TDG legislation Products are to be upright and secured for transportation 	B
<ul style="list-style-type: none"> High Noise Levels 	<ul style="list-style-type: none"> Monitor noise levels to determine if allowable exposure limits are exceeded (85dBA over an 8-hour period) Ensure workers wear CSA approved hearing protection appropriate for the noise levels to which they may be exposed 	A
<ul style="list-style-type: none"> Repetitive Vibrations & Musculoskeletal Injuries 	<ul style="list-style-type: none"> When possible, use low vibration tools and equipment Maintain tools and equipment properly Minimize exposure time and frequency of vibrations 	B
<ul style="list-style-type: none"> Heat Stress 	<ul style="list-style-type: none"> Drink water throughout the day (don't wait until you're thirsty) Taking rest breaks as needed (in a cool, shady spot) When possible, do the heaviest work at the coolest times Use the Buddy System – watch for signs of heat related illnesses in your co-workers If you think someone has heat stroke or heat exhaustion: call 911, inform the Foreman /Superintendent and begin First Aid 	A
<ul style="list-style-type: none"> Cold Stress 	<ul style="list-style-type: none"> Wearing several layers of warm clothing with a waterproof and wind-resistant outer layer Use the Buddy System – watch for signs of cold related illnesses in your co-workers If you think someone has a cold related illness, inform the foreman / superintendent, move the person to a warm area, remove wet clothing, warm affected area gradually, seek medical attention in sever cases 	A
<ul style="list-style-type: none"> Exposure to Radiation 	<ul style="list-style-type: none"> Foreman /Superintendents shall identify workplace activities, where there is a risk of exposing workers to radiation Workers shall be removed from workplace activities, where there is a risk of exposing workers to radiation 	B

SAFE JOB PROCEDURES (SJP)

- Pre-Task Commencement:**
1. Gather and wear the required PPE for the task - on construction sites, all must wear head, foot and high visibility protection. Eye protection when necessary
 2. Consult SDS for required PPE, handling and preventative measures
 3. Eye protection is required when completing tasks that may cause debris / objects to dislodge or become airborne
 4. Ensure workers wear CSA approved hearing protection appropriate for the noise levels to which they may be exposed
 5. Determine what physical agents may be encountered as of site conditions and weather
 6. Determine if Heat / Cold Stress Management Plan is needed
 7. Ensure the site-specific workplace violence assessment is complete
 8. Complete the Daily GAZZ Card and review with all workers the shift's tasks with any associated Chemical, Biological or Physical Agents and the associated control strategies
 9. Ensure all workers understand the GAZZ Card contents, and sign off in acknowledgement
 10. Ensure controls are in place prior to commencing work so risks are mitigated / eliminated
 11. Determine what equipment / machinery / tools and material, are required for the completion of the task
 12. Inspect all equipment / machinery / tools prior to use and document the inspections on appropriate forms when required
 13. Ensure preventative maintenance activities have been completed where required, prior to using equipment / machinery / tools



HAZARDOUS AGENTS (CHEMICAL, PHYSICAL & BIOLOGICAL)

14. If Chemical / Biological containers are observed to be damaged / missing labels, remove from use and notify the Foreman /Superintendent
15. Install fencing and hoarding where needed
16. Locate utilities – Call “Ontario One Call” for locate services (when necessary)

During Task:

1. Consult the SDS and wear all appropriate additional PPE
2. Commence activities when it is safe to do so (abiding by the information presented in the SDS)
3. Supervisors are to monitor all hazardous agents within the workplace and if exposure levels are exceeded, implement corrective actions
4. Operate equipment machinery and/or tools as per manufacturer's instructions
5. When in operation, do not leave equipment or controls unattended

Designated Substances (D.S.):

1. All potential D.S. and controls will be communicated to all applicable workers before starting the task
2. Consult the SDS and wear all appropriate additional PPE
3. Control exposure of workers and the general public to any D.S. that may be present
4. When there is likelihood of site exposure, appropriate PPE will be provided with instructions covering use, care and maintenance
5. All employees shall wear the appropriate PPE where the potential exposure of a D.S. cannot be reduced below the occupational exposure limit
6. Implement additional control methods to ensure the containment of D.S.
7. Consult the SDS and implement storage requirements in the designated location

Spill or Accidental Release:

1. Notify the Foreman / Superintendent, immediately
2. Evaluate and assess the situation
3. Determine what spilled / leaked
4. Determine the source of the leak or spill
5. Consult the relevant SDS to determine what controls are needed when handling and containing the product
6. Follow any specific disposal instructions as identified in the SDS
7. Contain the spill using the spill-kit materials and use a shovel to lift and dispose of materials/chemicals into spill kit containers
8. If the spill is large, prevent the spill from spreading by using spill-kit materials to dam the spill
9. Waste material must be placed in the appropriate containers and removed from site
10. If containment and disposal is not a safe possibility, inform the Foreman / Superintendent, assess the scene, alert workers to evacuate the area if needed and proceed to the designated muster point

Heat Stress:

1. On hot days, Foreman / Superintendents shall remind workers of the hazards and controls relating to hot temperatures
2. Supervisors and workers shall monitor coworkers for symptoms of heat related illness
3. More frequent breaks may need to be taken
4. If a worker is exhibiting signs of heat related illnesses they shall take a break in a cool area (such as an air-conditioned office trailer or vehicle), and given water to drink - if signs persist, the worker will be advised to seek professional health care
5. If signs of heat stroke are exhibited, call 911 and while waiting, cool down the worker by having them rest in shade and immersing their limbs in a tub of water - if the worker is unconscious they shall NOT be given anything to drink
6. After such incidents supervisors shall produce appropriate incident reports

Cold Stress:

1. On cold days, Foreman / Superintendents shall remind workers of the hazards and controls relating to cold temperatures
2. Supervisors and workers shall monitor coworkers for symptoms of cold related illness
3. If a worker is exhibiting signs of Hypothermia call 911, move the worker to shelter and remove any wet clothing
4. If worker is exhibiting signs of frostbite call 911, move the worker to shelter and gradually begin to warm them
5. After such incidents supervisors shall produce appropriate incident reports



HAZARDOUS AGENTS (CHEMICAL, PHYSICAL & BIOLOGICAL)

Task Completion:

1. Consult the SDS and implement storage requirements in the designated location
2. Ensure all equipment / machinery / tools are maintained and stored appropriately in the designated locations
3. Implement any housekeeping or maintenance as required